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CONVOCATION
ADDRESSES



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CONVOCATION ADDRESSES

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convocation ADDRESSES

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## Preface

esign interprets culture. Culture creates values and values shape the future. The thoughts on design in this collection capture not only the erudition and perspectives of the eminent speakers but also reflect the changing times and concerns. I remember that in the fashion industry there is a statement that even if everything gets destroyed, if you have the pictures of the people and their dresses over the years you can tell a whole story of the evolution of the society and the times they lived in. The concerns, vanities, predilections, constraints, challenges and aspirations are all visible in the dresses of people. Designs have also a way of capturing the societies and economies in transition.

Design is a simple word with a complex meaning. The origin of the word design is from Latin and the Latin word designare means to express. I remember in 2002 asking the NID community to come out with equivalent words for Design in any Indian language. I drew a blank as the over powering English word Design seems to have become a comprehensive expression in everybody's mindspace. Even if the word Design is a transplanted one in India we should not lose sight of transforming the Indian traditions, cultures, aesthetics sensitivity

and heritage to create an Indian idiom of design. It was this Indian design idiom what the late Charles and Ray Eames had advocated for NID to pursue. NID being a unique institution, which reflects these concerns, the Convocation event at NID every year is more than just giving Diplomas and awards. NID continues this Khoj in the words spoken by eminent people and the footprints they leave behind in the sands of time. I believe the words spoken have a way of creating ripples to begin with and then some of them become waves and then with the right wind can create mountainous waves, sometimes even turning furious washing the shores away. Design has remained a peripheral activity owing to many reasons one of which is its failure to use the power of anticipating the future to full impact and connecting the vision with realistic action. There has been a huge gap between the design vision and design action, which have left the people somewhat unsure about design. I hope the experiences shared by the visionaries through the years in the convocation addresses find resonance in the minds of every one who reads and shares these thoughts. I invite you to an edifying experience, as more and more people would want to understand design. We do hope the reader will discover the true value of design in defining and improving the quality of life. Design is not just for a privileged few but for everyone, everywhere. The leading lights on design invite you to tread this territory where angels in this instance do not fear to tread.

Dr. Darlie O Koshy Executive Director, NID, Ahmedabad 3rd November 2003



"IF A PERSON IS TO FEEL RESPONSIBLE HE MUST HAVE THE ELBOWROOM TO MAKE DECISIONS. TO THAT EXTENT THE INSTITUTION MUST PROVIDE HIM WITH THE CONDITIONS UNDER WHICH HE CAN FIND AND EARN AUTONOMY IN CARRYING OUT HIS RESPONSIBILITY. AUTONOMY LIKE FREEDOM IS NOT JUST ASSUMED. IT IS EARNED AND WON EVERY WEEK, EVERY MONTH, EVERY YEAR.

JOINT RESPONSIBILITY IMPLIES THAT THERE IS MORE THAN ONE PERSON INVOLVED IN THAT TASK. THERE ARE GROUPS INVOLVED IN THE EXECUTION OF THE TASK AND I HAVE ACCEPTED THEREFORE TO WORK IN A GROUP. WHILE I WILL NEVER SACRIFICE MY INDIVIDUALITY, WHILE I HAVE ACCEPTED THE RESPONSIBILITY, MY INDIVIDUALITY CANNOT EXPRESS ITSELF ADEQUATELY UNLESS I LEARN TO WORK IN A GROUP."

- Prof. Ravi J Matthai

# Walking in One's Integrity

1

am most appreciative of your having invited me to deliver the Convocation Address, and I am particularly honoured since this is the first Convocation. I am still somewhat doubtful about the wisdom of inviting close friends to perform such formal roles on such formal occasions! Apart from anything else, it is not easy to keep a straight face. Also, I am a little apprehensive about saying all the flattering things I would like to say knowing that I will have to face your unblushingly tomorrow. I have attended many convocations. Convocation speakers will often start by saying that they will not give you words of sage advice, but then proceed to do precisely the opposite. But I am going to start by saying that I am going to preach. Please bear in mind that I do not practise what I preach. So, just sit back and prepare yourselves for a sermon!

### The Swan Within

I am sure all of you must have read or at least will have heard of Hans Anderson's beautiful little fable of The Ugly Duckling. I will recount this tale in an abridged form. The ugly duckling was hatched on a farm by a duck. The egg was much larger than a normal duck's egg and the egg took much longer to hatch. And when the duckling emerged it was larger than most other ducklings, it was disproportionate, it was gawky, it was clumsy and it was altogether thoroughly grotesque. And all the birds, animals and people on the farm thought that it was a most terribly ugly duckling. They made its life so miserable that they drove it from the farm and it flew over the hedge and went out into the wide, wide world feeling so very ugly, hopeless and useless. The ugly duckling went through many adventures, and

all these adventures reinforced its feeling of being ugly, hopeless and useless. I will recount two of these adventures, which I particularly like.

In the course of his wandering through the wide, wide world, he came upon a lake and on this lake he found some wild ducks. The ugly duckling went up to the wild ducks and asked whether he could join them on their journeys across the world, because ducks are migratory birds and they fly all over the place. The wild ducks looked at the ugly duckling and said, "You are remarkably ugly, but that is nothing to us, so long as you do not marry into our family." Unfortunately that argument could not get very much further because there were hunters on the lake and bang-bang went the guns and the wild ducks dropped dead. The poor ugly duckling hid in the reeds and one of the hunter's dogs came searching for the wild duck. It came across the ugly duckling, had one look at it and ran away.

The poor ugly duckling thought, "I am so ugly that even dogs get frightened of me." And again the ugly duckling went off into the wide, wide world feeling even more ugly, even more hopeless and even more useless. One evening he came to a tiny broken down hut, He found a place in a corner and went to sleep. In this hut there lived an old woman, a hen and a cat. When the old woman woke in the morning she saw the duck and said, "Ah! Now I will be able to eat duck's eggs."

And so the very superior hen asked the duckling, "Can you lay eggs?"

The duckling said, "No."

To which the hen said, "Then will you hold your tongue!" The cat asked, "Can you curve your back and purr and

give out sparks?"

The ugly duckling said, "No."

The cat replied, "Then you will please have no opinion of your own when sensible folks are speaking." But the ugly duckling said, "There is something I would dearly love to do. I would like to dive into a pond of water and allow the cool water to close over my head and swim about." The hen and the cat were absolutely shocked.

"Dive into water?" asked the hen. "Do you think the cat, which is the cleverest animal I know, likes to swim? Do you think the old lady dives into water and lets it close over her head?"

But the ugly duckling said, "I am awfully sorry, but I am afraid you don't understand me."

And the hen said, "We don't understand you? We who have opened our doors to you, we who have given you a roof over your head, we who have given you the warmth of our fire, we who have offered our friendship—we don't understand you? You are an unpleasant chatterer. Did you not fall into company from which you could learn? I speak for your own good. I tell you disagreeable things and by that you may know your true friends. Only learn how to lay eggs, curve your back, purr and give out sparks."

So the poor ugly duckling said, "Oh dear, there is no future for me here, I had better go off into the wide world." "Yes, do go," replied the hen. And once again the ugly duckling went off into the wide wide world, feeling even more ugly, even more hopeless and even more useless.

One day it came to a river and on the river it saw three of the most beautiful birds that it had ever seen. Children on the

banks of the river were clapping their hands with joy and people were feeding the birds with bread. The ugly duckling had a tremendous yearning to join them and so he spread his wings and sailed on to the river. And as he landed, he saw his reflection in the water. And what he saw was the most beautiful snow-white bird, with a magnificent arched neck, even more beautiful than the beautiful birds on the river. All the people on the banks clapped their hands and said, "Look, we have a new swan and it is even more beautiful than the others." And the three swans swam up to the ugly ducking, folded him in their wings and took him to them.

That is the story of how the ugly duckling grew up and came to realise himself.

All of us throughout our lives go through the same process as the ugly duckling. Our stories don't have an end until the grave. We are constantly looking for the swan in us and we never find all of it. The ugly duckling perhaps was lucky. But we find new environments, we find new contexts, we find new problems, we find new approaches, we discover new capabilities in ourselves, and we are until we die, constantly looking for the swan in us.

Perhaps as is the case with yesterday's ugly duckling and today's growing swans, so is the case with institutions that nurture them. As someone interested in the building of institutions, I have watched the growth and development of the National Institute of Design for now just less than 15 years — ever since I came to Ahmedabad. It has been through very difficult times. But it started with excellent ideas and concepts. However, it was subjected to most trying circumstances and perhaps, as though tempered with fire, I think it came out

stronger on each occasion and its community, I hope, wiser as it searched and struggled for its identity. NID has many strengths. But I could hasten to qualify that, with caution that in every strength there lies the seed of a corresponding weakness. It is frequently the case that success is the cause of failure.

I think there are three very significant factors, amongst others, which relate to the identity of an educational institution: its organisational culture, its educational philosophy and the range of opportunities and roles, which it perceives for itself in the environment which it serves.

By culture I mean the sets of values, the beliefs, the norms, the attitudes which determine the patterns of behaviour within an organisation, attitudes towards the institutions, attitudes towards tasks, attitudes towards working relations, attitudes towards your peers, attitudes towards the environment, towards creativity, innovativeness, imagination, attitudes towards power and the use of authority, attitudes towards leadership — all these intangibles which go to make the character of an institution as much as they go to make the character of the people within that institution. And as the character of the people within the institution grows so only they and they alone can build the character of the institution.

Many years ago, there was a document written and circulated in NID, which, I think, was written, by Gira and Gautam Sarabhai. A significant and important document relating to the organisaton of the Institute, it used the phrase 'joint responsibility' I would like to try to design and weave a cultural tapestry using the strands that I can extract from these two words: joint responsibility.

I accept the responsibility in the context of an organisation

when I agree to undertake a task; I accept the responsibility for the completion of that task. Every task has an objective. I therefore accept that objective. In the context of an institution, that task is a part of the overall function of the institution.

I have therefore accepted the institution. The institution has an objective and the objective of that task must be consonant with the objective of the institution. I have therefore accepted the objective of the institution. Every task has a content and character to it. It might be, for example, the conduct of an educational programme. I have accepted that content of the task. By the very nature of the content it must have a boundary, which specifies the content, and therefore have I accepted the boundary. Every organisation has a pattern of behaviour by which it suggests behaviour that is appropriate or not appropriate to the performance of its tasks. It may be that it is accepted that the wisest use of authority is the most sparing use of it. It may be that we do not use coercion. We use persuasion. On the positive side it may be that the task demands more initiative than otherwise, more creativity. I have accepted the positive aspects of the behaviour by which we accomplish these institutional tasks. In accepting, therefore, a responsibility, I accept the task. I accept the aim of the institution. I accept the content of the task, the boundary of the task and I accept the modes of behaviour by which those tasks are best accomplished within that insti-tutional framework.

When I use the word 'joint' it would imply that there is more than one person involved in that task. There are groups involved in the execution of the task and I have accepted therefore to work in a group. While I will never sacrifice my individuality, while I have accepted the responsibility, my

individuality cannot express itself adequately unless I learn to work in a group. You must have seen nesting tables where tables of different sizes fit into one another. Similarly you have hierarchy of tasks. It could be running the whole institution. The next level could be conducting the educational programme. The next level at NID could be conducting the 'foundation' part of the educational programme. The next level could be conducting a course in the 'foundation' programme. These are hierarchical tasks. But they all must have a consonance in their objectives. Similarly there are parallel tasks — education, research, consulting, extension, work in the workshop. All these tasks have a commonality by virtue of the fact that they serve the same overall set of institutional activities and aim at the same institutional goal. This commonality is what underpins 'joint responsibility'.

It is easier said than understood. And one of the greatest problems in any institution is trying to bring about this commonality. If there is ambiguity, it must be discussed. It must be discussed threadbare until there is understanding. But in understanding, we have to be able to listen to others. It is common that we are aware but we do not hear. It is common that we hear but we do not listen. It is common that we listen but will not or cannot understand. In such discussions, we need to listen with what my behavioural scientist friends call "listening with the third ear," making the effort to understand another person's point of view. Perhaps the most beautiful description of this is the parable of the Sower and the Seed in the Bible, which talks of understanding as understanding from the heart. It is this understanding that is required in the course of the "give and take" which Smt Jayakar mentioned. This give and take is necessary if joint responsibility is to mean anything.

If responsibility is to be joint, then every member of the community must have the opportunity of understanding and accepting a responsibility. Responsibility is not the prerogative of the so-called seniors by whatever criteria that seniority be established. If you are a senior professor and I am a junior professor, that seniority does not make you any more capable of running an education programme than I. Your seniority is irrelevant to the task. But as a junior faculty member if at all I accept the notion of joint responsibility, then I have accepted the responsibility of undertaking important academic administrative tasks, just as the senior has accepted the responsibility of helping me, a junior accomplish them. There is reciprocity, mutuality and a mutual concern between us to see that the job is done and if in any way, I as a junior am incapable or am inadequate to the task, it is the obligation of my seniors to develop me. That is basic to the idea of joint responsibility.

If a person is to feel responsible he must have the elbow-room to make decisions. To that extent the institution must provide him with the conditions under which he can find and earn autonomy in carrying out his responsibility. Autonomy like freedom is not just assumed. It is earned and won every week, every month, every year. The poet James Lowell perhaps described this excellently in his poem on Freedom. He wrote:

"We are not free: Freedom doth not consist
In musing with our faces forward the Past.
While petty cares, and crawling interests, twist
Their spider-threads about us, which at least
Grow strong as iron chains, to cramp and blind
In formal narrowness heart, soul and mind,
Freedom is recreated year by year..."

Later in the same poem he writes:

"Freedom gained yesterday is no more ours;

Men gather but dry seeds of last year's flowers."

Such to my mind is the nature of autonomy, and our attitude towards it is a part of the institution's culture. To develop such a culture requires a great deal of organisational flexibility. The only way this flexibility can be brought about and sustained, and this perhaps underlines the whole process of bringing about joint responsibility, is the exercise of self-discipline within the institution's community rather than the imposition of authoritarian discipline from above. Whether in terms of building the Institute or in terms of accomplishing a more limited task, if we, as a community accept that these are tasks for which we are jointly responsible, then we must understand the nature of responsibility and autonomy and the restraints they imply. We must also understand that the working relationship in the Institute must be based on mutual concern and support underpinned by self-discipline.

The second factor that I mentioned relates to the educational philosophy. There is not an institution concerned with applied knowledge that imparts professional skills where I have not heard the unending and age-long argument about 'theory' and 'practice'. Perhaps it started when the first system of formal education came into contact with the guild and the apprentice-ship systems. It will probably continue until doomsday. I have heard this argument on this campus and on many other campuses. The substantive outcome of the argument may be important. But what certainly is important is the fact that this argument takes place. If the institution legitimises the fact that the argument should take place then implicitly it has accepted

as part of its educational philosophy that its educational programme must be constantly reviewed and changed as circumstances warrant such change. And it is these arguments and discussions that will bring this review about. By discussing it on this campus, you implicitly accept change as part of your educational philosophy. This is as it should be. Over time new balances need to be brought about between theory and practice. Every institution in every different profession during each phase of its growth will have its own appropriate balance. Every institution in different environments and contexts will have its own balance, and every institution as it develops will keep alive through its discussions the search for a new balance all the while.

A similar argument relates to 'education' and 'experience'. These are not substitutable. They complement each other and supplement each other, I thank God that I do not have to discover the laws of demand and supply all over again. I might have to spend the rest of my life doing it. I am sure we are all thankful that we don't have to wait apprehensively under very crow on a mango tree waiting for Newton's gravitational inspiration to strike us. In fact, when I come to think of it, Newton was rather lucky with his apple.

I am equally thankful that when I get into my bath tub, I do not have to discover as new as to why the level of the water rises, causing me to leap out of the tub and rush through the streets of Ahmedabad shouting the Gujarati equivalent of "eureka" — whatever the Gujarati equivalent of "eureka" may be. But however much or however little each one of us might assimilate from the vast accumulation of human knowledge, to that extent we lay a base for ourselves from which we enhance

the value of experience. Let me illustrate this by taking your example. The fact that any one of you has been through the National Institute of Design for five and a half years does not make you a better designer than some one who has not. But I will say this. If you come to this Institute with a desire to learn, with a real interest in learning, and have at your disposal the resources and facilities of NID for five and a half years, then I would say that you are an utter moron if by the end of that period you have not become sensitised to far more aspects of design that would have been the case had you been denied this advantage. If then I put such a person from NID together with a person who is not from the Institute simultaneously into an identical set of circumstances, I would expect the NID person to be far more sensitive to myriad more factors than the other person. And so I would expect the NID person to gain for more value from that experience than the person who has not had this facility for five and a half years. Thus education enhances the value of experience. If you look at a part of your working life as a series of such experiences then from each experience you gain that much more as a result of your education. You are then accelerating your process of learning and this is what education is about.

While in such an Institute as this it is necessary to gain knowledge, in an institution concerned with the application of knowledge and the development of professional skills, it is also necessary to learn how to use knowledge. To use the phrase of one of my friends in this audience, it is not enough to learn the mantras of the profession. Articulation is no substitute for doing. And by doing, you discover much more than new facts of knowledge and problems of implementation. By doing you

discover your own capabilities or the lack of them. By doing you discover as to whether you have the capability of making the leap from the point where analysis ends to the point where solutions begin. Have you the capacity to bridge the gap from where knowledge ends and inspiration beings? Have you the capacity to bridge the gap from where science ends and art beings? This is the value of doing: to learn what no book can provide — the discovery of your own capabilities.

Again, it is necessary to learn knowledge, it is necessary to learn the use of knowledge and by doing, learn of your own capabilities. These are processes that interact. If you learn more knowledge, you will, hopefully, learn more from experience and in doing so will increase your desire and ability to assimilate knowledge, and both aspects will be influenced by the process of discovering yourself. You become aware of knowledge. You search for that knowledge. You assimilate that knowledge and you learn to use it. The common thread throughout these interacting processes is the process of learning itself. So what is even more important in the educational philosophy is the emphasis on learning how to learn — learning how, in the course of your working life, you can increase your rate, intensity and quality of learning.

In such a system the onus rests squarely on the learner. And that is very inconvenient. If the onus is on you, you have no one to blame but yourself. If I have to go through this process with the onus of my learning wholly and squarely on me, this would be the surest and quickest way for me to discover my inadequacies and limitations. Discovering this is painful and frustrating. It is a common and understandable human reaction to transfer that pain and frustration on to people who can be most easily

hurt. We choose the most susceptible and vulnerable. At home it is our parents. But here it is our teachers and our institution. The only ones we can hurt are those who care for us. Those who are indifferent we cannot hurt.

Once again, as I mentioned in relation to the institutional culture, the only basis on which the culture for self-learning can exist is within a framework of institutional flexibility, which can only be ensured by self-discipline and not by the discipline imposed from above. The development of these attitudes is a slow process. It cannot occur overnight. But it is a process through which we will have to go, if we want to achieve self-expression within a self-regulatory system.

Lastly, I mention the range of opportunities and roles of the Institute in relation to the environment. There was a time when many people thought that NID was concerned with products of large industry. The faculty and the students of this Institute have, over these many years, demonstrated that their concerns are far wider. The Institute has widened its perspectives, the canvas is broader, and the pictures and designs get more complex. The Institute deals with industry; it deals with urban development; it deals with the physically handicapped; it deals with the environment; it deals with infrastructure; it deals with rural development. It is building a wide spectrum of opportunities, which the Institute offers to every creative person who legitimately takes part in its activities. But every individual cannot be everything to everybody. The National Institute of Design does not produce universal men and women. Each individual in this institutional framework will make his or her choice. They will make their choice not through the bludgeoning of the populist demagogy of small carrion minds who would like to use

educational institutions for limited personal purposes. The Institute's designers will hopefully, make their choice because they believe in them. You designers are the link between the substantial shapes and forms of the output of science and technology and the poetry of human sensitivities and needs. That poetry demands that your choices are honest, to yourselves and honest to the needs of the country that gave you the opportunity to learn. Walt Whitman once wrote, "The proof of a poet is that his country absorbs him as affectionately as he absorbs it." In terms of such choices, I hope it can be justifiably claimed by anyone concerned with NID, as I hope it can be claimed by the institution itself, "Judge me Oh Lord, for I have walked in mine integrity!"

And so at long last I end this sermon with love and best wishes to the growing ugly ducklings of NID. I hope you never cease to look for the swan in you.



"A NATIONAL INSTITUTION LIKE THE NID IS EXPECTED TO JUSTIFY ITS
EXISTENCE IN HELPING RELEASE THE SPRINGS OF CREATIVITY IN OUR
PEOPLE. WE ARE AN ANCIENT PEOPLE THOUGH A NEW REPUBLIC.
THE CREATIVE SPRINGS THAT WERE CHOKED UP UNDER THE DEAD
WEIGHT OF FOREIGN RULE AND WERE AWAKENED DURING THE
NATIONAL RESURGENCE MUST FREELY FLOW IN ORDER TO ENABLE
US TO LIVE IN ANY WORTHWHILE MANNER."

— Dr. Umashankar Joshi

Designing a Better Life

am deeply aware of the honour the Director of the National Institute of Design has done me by inviting me to deliver the Convocation Address before the second batch of students, who would be leaving the Institute after successfully completing their studies. I wonder what design he should have on you in inviting a literary man, a maker of poems, on such a solemn occasion. Maybe, he feels that we have something in common. All I can do is to do some loud thinking and leave it to you to find out if we are at the same wavelength.

Gandhiji said that if he were a poet he would have written the epic on the five fingers of the hand. Man, with his thumb facing the other four fingers and the wrist moving in either direction with a flick, has been able to develop powers of the head, which in turn have enhanced the capabilities of his hand. Man's hand, aided by his head, stretches quite far in the outer reaches of the encircling space. It can plant a man on the moon and send a rocket very near to far off Jupiter. Man, restless and impatient, refuses to accept the environment as it is, tampers with it, hopefully with a view to improving it.

Through the ages the resourceful pair of man's hands has been creating countless things of immense variety for his daily use. The museums of the world are full of the products of man's handiwork belonging to various ages. What we witness is not just his footprints on the sands of time, but also fingerprints on the canvas of the vast. One notices a bewildering variety of design in all these artefacts. It is perhaps more the design that the material or anything else that is responsible for their being shared and preserved in a museum. And yet when we look at the things we use today, we find how differently

they are designed. Man's innovative nature goes on evolving newer and newer designs in order to meet even slightly newer needs. The designs serve the purpose for some time and then are relegated by the users without even the batting of an eyelid, to the lumber-room of the past or in some cases to a museum.

Take the headwear, puggree, of the nineteenth century, as used in Gujarat alone. The small states of Saurashtra, Bhavnagar, Junagadh, Morbi had each its own lavish variety. Besides giving an identity, it tried to project the personality of the wearer, usually the business and ruling elitist section of the society. The Ahmedabad variety was, understandably, less ostentatious, barely functional and the Surat one large and over-shaped, again understandably, tried to frame the face in an aura. One wonders whether the European traders of the port had anything to do with its design, but to be sure a Surati wanting to whisper a secret he could not contain within himself, in the ear of the fellow-citizen, could not do so unless either of them took off the fulsome puggree. A four-anna Khaddar cap arrived on the scene and all these puggrees could not compete with it as a prestigious symbol and became obsolete in no time. They can now be seen only in a museum, if at all. After over half a century of its career, the white (for it is not always khaddar) cap is on its way to oblivion.

The teeming variety of designs in a museum or in the things of our daily use highlights one truth, simple yet profound — that of man's creative exuberance, the inexhaustible innovative faculty of man.

In a country like ours, which possesses a proud record of designs from the Harappan age onwards, we find many a beautiful canto of the epic of the five figures of the human hand writ large in her continuous history. It is after India's coming into contact with the West, that her handicrafts were crippled and almost crushed out of existence. The advent of the Industrial Revolution in Britain coincided with the British gaining suzerainty over India, a fact which helped ease the travails of the sudden and rapid change in the British Society, but turned an advanced handicrafts producing country like India into a country which was expected just to export raw materials and be a dumping ground, a vast market, for finished goods. The creative ability of Indian craftsmen got irreparably damaged. No wonder, at the first great upsurge of nationalism, the Swadeshi movement aimed at recapturing the excellence in craftsmanship of the earlier generation.

One of the innovations in design that followed was the one regarding the spinning wheel. Gandhiji had announced a prize of rupees one lakh for it. The portable, folding, Yerawadacharkha, that emerged as a result, had its wheel horizontal, while normally spinning wheels were plied vertically. The amber-charka, which yields much more yarn, has practically replaced it during the past two decades and a more yarn-yielding design of the dabba-katai seems now to be poised for taking over from the amber-charkha.

The problem of design in independent India has been a challenging one. Before it could put the handicrafts on their legs, two new factors appeared: (1) there was population explosion at home, and (2) abroad, in the West, and in Japan there was tremendous technological advancement. Technology offered consumer goods in plenty and the hunger of millions and millions of Indians for such could be satisfied only through mass production, which technology made possible.

Plastic utensils, for example, came handy. Plastic cups, saucers, bowls, tumblers, buckets, etc. with their riot of colours, came also as a relieving feature in a drab environment. Again it was clear that it would be more possible for industry to finance design and enlist the services of designers than it would be for the handicrafts. However, the fact remained that even if it were possible for India to have more and more industries, the bulk of the population would have to find employment especially with automation in the offing, outside, factories, in rural areas, preferably at the very door.

In a situation such as this, an institute like the National Institute of Design is called upon to do something of a miracle. To create a design community which does not allow itself to be lost in big industry catering to the urban population but is devoted to developing design as an aid to the small rural industries and handicrafts, which is dedicated to research as a part of its training in the indigenous design idiom: which visualises training in Industrial Design and Visual and Communication as a tool of change and continuously equips itself to lend a helping hand in designing the mode of living in this vast subcontinent, and which is interested not in beauty objects pandering to the taste (or shall we say the lack of it?) of luxury addicts and aesthetes but in improving the quality of the total environment and in constantly trying to bring good living into the focus as a value.

An institution like the NID is just not there merely to provide personnel to big industry. It is expected — of both faculty and students — to create a climate of design mindedness, to foster a design culture.

The teachers and students engaged in the joint venture of

turning design into an instrument of change — into veritable national assets would evince a great flexibility of approach. They would not be so much eager to offer solutions as to help others find them on their own. They would be learning no less from the rural craftsman to whom they offer services than from one another. They would harbour no narcissus complex vis-à-vis their own design creations but feel all the more satisfied when others transcend the designers created by them, and seek their reward in the snowballing of the innovative faculty.

A national institution like the NID is expected to justify its existence in helping release the springs of creativity in our people. We are an ancient people though a new republic. The creative springs that were choked under the dead weight of foreign rule and were awakened during the national resurgence must freely flow in order to enable us to live in any worthwhile manner.

Design education and design training has to lean heavily on all kinds of academic disciplines, e.g. sociology, psychology, literature, philosophy, physics, mathematics. However as design deals with doing or making, the role of imagination can hardly be underestimated.

May I make this clear by referring to a couple of cases?

The first is that of painting in a cave at Ajanta. Picture drawing and painting have started in caves, the oldest being at Altamira. A drawing or painting creates new space, an infinity, an opening out. The painting in the Ajanta cave to which I want to refer is that of child Rahul being ushered by his mother Yashodhara to Lord Buddha, who stands as a begging mendicant at the door. We are at Kapilvastu. Legend has it that Rahul, prompted by the mother, was asking his father what he was

going to give him. The son is looking up. The presence of the tall peaceful figure of the Lord seems to be in itself a boon. The painting is valid by itself. But a new value is added by a designer, perhaps the designer in the artist himself. The Kapilvastu scene could have occupied any portion of the wall space without taking a whit from the artistic excellence of the painting.

It could have sprung up from the floor upwards or could have been higher at the top. But the designer, by a happy stroke of imagination has placed it at the height that enables us; viewers who stand in front of it, to identify ourselves with Rahul. If so happens that our eye finds itself just at the level of Rahul's eye and we too like him and along with him look up and the tall peaceful figure of Lord Buddha stands before and over us, showering blessings.

The other case, I have in mind, is that of the gardens designed by Muslims especially Moghuls. The Moghuls have an exceptional sense of garden design. They weave some features of the larger landscape into the design. The Japanese also do so with an exquisite sense of beauty. While the Japanese would concentrate on some delicate detail, or something exotic and weird, the Moghuls rather prefer a simpler groundwork of design. The result achieved has amplitude, a natural dignity and a touch of sublimity as even the Muslim mosque-architecture has. The Shalimar garden makes you look ground wards, to the flowers and the fountains. The trees close you in. The garden tapers off in to a thicket in the valley and the mountain-peak now and then lurks from behind treetops. The Nishat, however, invites you to look around, up and beyond the riotous colours of the flowerbeds notwithstanding. The boulders of the

mountain, with a cloud at the top into the bargain, form a valid part of the design. Water has no part to play in the garden, except for a small streamlet that flows purring in the grass. The Dal lake was shut out at Shalimar, while here the garden terrace seems to jut out and loom over the Dal, annexing it to its ambitious design. On an evening the golden rays of the sun, setting behind the hill beyond the Dal, would suffuse the entire Nishat, that faces it, with a soft radiance, right up to the white mountain in the background and make man's work mingle with God's, turning the whole into a living entity. And all this because of imaginative design. The design is the thing. Needless to add the name Moghul gardens given by foreigners to a newly designed garden at the back of what is now the Rashtrapati Bhavan should not be allowed to be used, if need be, by an act of Parliament.

Designs are the work of man. They have unmistakably something human about it. And the reason for existence of all design activity ought to be the humanisation of the environment. As design is something that pervades all life there would be for the designer, numerous opportunities working towards this goal, which often eludes the politician and the social engineer.

The designer's vocation of humanising the environment has all the more relevance in the present age of rapid technological advancement. There is a naive faith in technology to be seen in some quarters. It was the youth, students of Sorbonne University, who voiced a deep concern in technology turning community into a mere consumer society. Later problems of ecological imbalance and those of pollution have also been highlighted. We, in the developing countries, want all the help that technology can give us in eradicating poverty. Technology

has come to stay. The question is how man can stay as man on this earth. Technology knows only one value, that of efficiency. Man goes under. The technological civilisation nibbles at the network of person-to-person relationships and the channels of love tend to get dried up. Design culture can act as an effective antidote to the possible ravages of technological civilisation.

For example, the city planner in Brazilia has warded off children's schools and playgrounds and housewives' shopping centre from motorised traffic inside a 'quadra'. An architect told me that in an educational institution he saw to it that motorcars could not go beyond a certain point. What he did was to throw the faculty and students together, which would be conducive to the fostering of personal relationships. The same wisdom made Sir Winston Churchill advise, when the Chamber of the House of Commons was reshaped after the damage done during the Second World War, to provide for less number of seats than the total number of M.P.s. He insisted that that was the place where the members should jostle and rub shoulders with one another.

Countries like ours are likely to benefit more from intermediate technology and from the 'Small is Beautiful' approach. For thirty years before India won independence, khaddar was, as Nehru described, the livery of freedom. It is a pity that after winning freedom, it should not be so much in vogue and find itself in need of state patronage. It was popularised by Gandhiji with a much larger aim in view. It gave work to idle hands no doubt, but it did not aim just at making a man earn his bread. Its aim was to make him, while gaining bread, regain his sense of human dignity. In pursuance of this goal, a variety of similar employment patterns will have to be explored and adopted. Experts in industrial design and visual communication might

succeed in devising fresh breakthroughs.

A specific reference to the one inevitable piece of furniture, used all over the country, the charpai, will not be, I hope out of place. The ancient Indian text on house building 'Manasara' lays down at the outset with what the building activity is concerned: 1. the land on which the house is to be built, 2. the house itself, 3. a vehicle, and 4, bedsteads, including a cradle. The last two items show how comprehensive a view the designer should have. One is to reach out to and communicate with those in other house, hence the vehicle. The house is a place for rest and recouping. Hence bedsteads. And it receives the new comer, a baby, hence the cradle. Bedstead in Indian climate has been normally light. It does not take up space; it can be raised and attached to the wall surface. And it is used not for sleeping only; it is for the vast majority of people the one minimal multipurpose piece of furniture.

In a North China village I have seen built platforms used as beds. Sometimes heat is passed into the hollow of the bed from the hearth in the adjoining kitchen. But Japanese uses mats for sleeping. In view of our rising population and lack of living space and means, only the affluent will be able to afford wood structures for bed. Already interior designers are providing, in small size urban flats, for dining tables and beds, which can be raised and attached to the wall surface. In the labour area there will be need for two or three tiers of sleeping bunks. Research in the design of the charpai is found to be fruitful and rewarding.

If design means a way of life, then it is proper for NID to invest more in improving the quality of living than in just turning out commercially successful designs. NID's effort to avoid the use of lead-based colours in ceramics is indeed laudable.

I have been prevented by private employers in the North from doing something for the young brass-workers who are forced to inhale powdered metal. NID I hear has taken upon itself to improve the environment of the locale. It could not do better. Those designers who change the environment, and with the quality of life many perhaps remain anonymous, but they are the ones who enthrone design in the hearts of fellow men as a value.

Value is no tag or label. It is the aroma, something breathed in imperceptibly, while using the things. It is the total climate that the use of artefacts and even the processes of their production build up.

Certain designs — artefacts or structures — become symbols for certain communities. The health and the whole mode of life of those communities would depend on such symbols. Somebody has referred to the difference in ancient Egypt and Greece. Egypt gloated over erecting pyramids; Greece reveled in enjoying drama at the amphitheatre. The pyramid was the symbol of morbid interest in death, or life after death. The amphitheatre was the symbol of the joy of life, for even though death was portrayed there, the tragic plays certainly ended in man's triumph in death and gave, as Aristotle rightly maintained, nothing but joy.

The study of designs that become symbols, expressing the ethos of various people, would be no less interesting than rewarding. It would at least throw light on the impact of design on the life of a people for better or for worse. The 'Swastika' was in India always an auspicious mark, a design which according to some represented the wheel of the sun's movement. But it turned itself into the symbol of one of the world's worst war machines under Hitler in our own times.

#### Umashankar Joshi

T.S. Eliot makes a grim reference to some symbol of the present civilisation. He envisages that at some future date.

...the wind shall say: 'Here were decent godless people,

Their only monument the asphalt road and a thousand lost golf-balls'

And in the very next line the poet emphasises the need for faith:

...We build in vain unless the LORD builds with us.

Are there any new symbols, new designs, evolving in the contemporary world, auguring some newer order? What can help the emergence of such new designs, new symbols, that can instill fresh hope in man?

Charles and Ray Eames, in their reports to the Indian Government in 1958, named Fatehpur Sikri as one of the possible locales for NID. Even though housed in Ahmedabad, NID is developing intimate concern in Fatehpur Sikri through research and plans of environmental designing. It is no secret that Fatehpur Sikri has the great Saint Shah Salim Chisti's shrine as its very heart and the whole city derives its life from it. No wonder that Akbar, the builder of that city, evolved and proclaimed Religion of the Divine that tried to distill the best in all religions into one faith. The need for some value at the centre of things cannot be over emphasised. New Delhi, built by foreigners around the erstwhile Viceroy's Lodge has failed to attain a character. And it seems our Indian rulers perhaps like it so. Things that grow without having some value as the nucleus remain soulless. It is design that with its humanising capacity can lend a soul to an environment.

I would like to utter a word of caution against the rigidly perfectionist attitude, certainly against the lure of geometrical perfection. Nature, as observed, does not take kindly to geometry. There is no perfect circle in nature. Nor even a straight line. The narrow path that crosses a field is never the shortest distance between two points. Man's legs rather prefer to move to a rhythm, which expresses itself in an undulating line. The creative vitality spurns at being straightjacketed.

A more propitious happening would be man's creative effort being reciprocated by an answering grace. May I quote from my poem, on a train, in the small hours, a few lines which might serve as a designer's prayer"

Let perfection be ever far from me
I seek the joy of imperfection
A formless lump of clay
On the turning wheel of Being,
I attain some shape. But then O Lord
Don't make it so faultless
As to leave You no chance
To give it a loving pat.



"IN A COUNTRY WHERE THE PER CAPITA INCOME IS SO MISERABLY LOW, LARGER MARKETS ARE MORE LIKE TO ARISE BY LOWER PRICES. DESIGNERS IN INDUSTRY COULD PLAY A VERY USEFUL ROLE IF THEY WERE TO ACCEPT THE PURPOSE OF IMPROVING PRODUCTIVITY, INCREASING EFFICIENCY AND SAVING COSTS. TO REALISE THESE OBJECTIVES THE DESIGNERS WILL HAVE TO WORK IN CLOSE COOPERATION WITH TECHNOLOGISTS, MARKETING MEN AND OTHERS. THE POOR RESPONSE OF OUR INDUSTRY TO DEMANDS FOR DESIGN CHANGES IS PERHAPS EXPLAINED BY THE ABSENCE OF SUCH COOPERATIVE APPROACH."

- Shri Keshub Mahindra

The Basic Purpose of Design

Owing to circumstances beyond his control Shri Mahindra could not attend the Convocation. His address was therefore delivered by Shri Shrenik Kasturbhai, then Chairman of NID's Governing Council.

feel honoured to be participating in your Convocation ceremony today. I do not know what design my friend Ashoke Chatterjee had in mind when he asked me to deliver the Convocation address. In a spontaneous surrender, succumbing to his charm I have since then been somewhat disturbed — for how do I fit into the arty, bohemian and the carefree world to which you belong. I come from the world of industry and management where I have spent the best years of my life. What I may have to say might appear to most of you as being too practical, commercial, calculating or even callous. To each one and all of you, I offer hearty congratulations on your success and it is my privilege to be sharing with you your sense of fulfilment and expectations. This moment marks the end of an endeavour as also heralds the beginning of yet another adventure. I wish you continued success in your careers during the years ahead.

In addressing an august audience like this, one has always to be careful as to not give an impression that one is sermonising. Your Institute is hardly twenty years old and your many achievements are admirable. Unfortunately in spite of this there is an impression in the business circles that you are somewhat isolated. Commercial design and industry must work hand in hand which calls for very close rapport, and as the premier institute in the country the full impact of your achievements has not yet been felt in the industrial circles. The fault obviously lies on both sides for these are interacting forces.

It is possible that the pattern of economic activity in the country has not brought forth earlier the essential need of your specialty, which is normally compelled by high competitive situations. Under the umbrella of protected markets, industries perhaps do not appreciate the worthy work that an Institute like yours can do. Obviously, this needs to be rectified and using an old Buddhist phrase that "you cannot clap with one hand," the understanding and rapport must be mutually resolved.

As an outsider I find that the world of design does not appear to be in a very progressive shape. I find the base narrow, boundaries restricted and its élan vital rather weak. Many of us see it as a small private isolated preserve of some superior beings — perhaps the picture is overdrawn, that is being done so intentionally, with a hope that it might provoke you.

In pursuance of this thought, I wish to raise with you three main sets of questions:

First, we should ask ourselves a fundamental question as to what is the state of design awareness in our country? Is there enough appreciation of the use and value of design in industrial circles?

Second, what is being done to promote and spread design practices in our industry and other areas of our national life? Are these efforts adequate and is the response encouraging? If not, what lessons can we derive from this experience?

Third, do our design activities reflect our own values and respond to our own needs? Does the work of our designers suffer from a good deal of imitative influence? Do our many designs in different fields help the development of authentic Indian style?

These are difficult and controversial questions, they raise

#### Keshub Mahindra

large complex issues which obviously cannot be covered in a short address. I also cannot claim any special competence to deal with it or to do justice to them. My purpose in raising these questions is to provoke you to think hard about your work and your profession. I have often heard it said that designers think that their business is really a matter of thinking. Before you change the look of things, you have to see the essence, unless your interest is only to bring in a cosmetic change. Design is obviously a creative activity but like all human activity it should not become an exercise in isolation.

In looking at many countries abroad one cannot help but come to the conclusion that design has changed the "look of life" over the years. The many changes brought by design have been far reaching and deep, not confined to a few selected areas of life or restricted to a few select strata of society. Many say that in our country design has passed by the vast majority of our people. It has left untouched a large part of our lives and where it has made changes many consider them to be of dubious value. The very nature of your function defines you as change agents and as such you are expected to address yourselves to the larger tasks of changing the climate for design in the country.

As an example let me consider in some detail the challenge of this task as it affects the work, livelihood and life of our village craftsman. There was a time not so long ago when they produced things of beauty, which were used and enjoyed by them and their other fellow villages. Under the impact of mass production many crafts began to disappear. There are many with heroic efforts who seek to revive the old crafts, but even then the handicrafts have come to acquire a hot-house quality. The products are used more and more by the sophisticated

and the affluent elite in our societies and more so aboard. The villagers themselves use cheap glossy synthetic materials. The return of the crafts to the people and the use of local products in the localities in which they are produced, are basic economic issues and answers are not simple. The question raises a host of complicated issues of technology, cost competition and employment.

These basic economic issues highlight the integrated nature of design activity where technology and taste, art and industry, marketing and engineering all meet. Design is not merely visual appeal: there is more to it than mere look. We must keep this clearly before us lest our design activities are said to wane to wasteful pursuit of product differentiation. To say that a thing is well designed is to say that it is well fitted for its purpose. But I venture to suggest that the dominant purpose for almost all design activity in the context of our own needs may well be savings in essential raw materials and costs. In a country where the per capita income is so miserably low, larger markets are more like to arise by lower prices. Designers in industry could play a very useful role if they were to accept the purpose of improving productivity, increasing efficiency and saving costs. To realise these objectives the designers will have to work in close cooperation with technologists, marketing men and others. The poor response of our industry to demands for design changes is perhaps explained by the absence of such cooperative approach.

Finally, I want to return to a most popular medium of entertainment, films. In the short history of fifty years, the Indian cinema has made great strides and our technical achievements in this field are truly impressive. In the words of Satyajit Ray

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with whom I am inclined to agree, "What our cinema needs above everything else is a style, an idiom, a sort of calligraphy of the cinema which would be uniquely and recognisably Indian."

I should like to end with some remarks from a recent interview with a grand old man of design, Raymond Loewy. He recalls in the interview the rapport he had built with the American Present John F Kennedy. Amongst the many things he did for Kennedy, Loewy recalled especially the redesigning of the carpets for the President's room in the White House. Kennedy was pleased with this work and he asked Loewy, "What else can you do?" Loewy's reply was — "Well, let's redesign America." Unfortunately, as Loewy recalls with regret and as do all, of us, President Kennedy was shot two days later in Dallas.

Ambitious as it may seem, it is only you the young who can redesign India. It must always be kept in mind that the purpose must be that through such models, the benefits of economic growth must flow to more and more people, in a manner which is fair and equitable. As thinkers, and as you get a little older you must keep asking yourselves these basic questions, analyse and debate them — shedding ideologies, for eventually you operate in the difficult tough world of pragmatism. The country is going through difficult times. I consider it a process of evolution. I have no doubt that as long as those who have been fortunate enough to obtain a high degree of education continue to be interested in the life around you, things can only get better.

I support the theory of self-sufficiency in a democracy. If sufficient people are sufficiently interested to take sufficient

action in a democratic society, things that go wrong do get rectified. The danger is when no one cares sufficiently. Then we all get what we deserve.

Once again I would like to thank you for inviting me. I have enjoyed being here and wish all of you great success in your lives.



"NID HAS BROKEN AWAY FROM THE OUTMODED METHODS OF EDUCATION FOLLOWED OVER THE PAST HUNDRED YEARS IN INDIA. IT HAS SOUGHT TO DEVELOP A MORE SUITABLE APPROACH BASED ON INDIAN NEEDS, WHILE BEARING IN MIND RAPID CHANGING CIRCUMSTANCES. METHODS ARE NOW BEING EVOLVED TO PROVIDE SOLUTIONS, WHICH WOULD BE ACCEPTABLE AND AT THE SAME TIME SATISFY THE WANTS OF PEOPLE IN AN AGE WHEN SCIENCE AND INDUSTRY PLAY AN IMPORTANT ROLE. THERE HAS TO BE A CONSCIOUS AND DISCRIMINATING ADAPTATION OF INTERNATIONAL MODELS AND EDUCATIONAL AIDS TO INDIAN CONDITIONS AND THE NEEDS OF INDIA'S CULTURE. THIS IS NOT AN EASY TASK FOR DESIGNERS. THE SCOPE OF DESIGN ACTIVITY HAS ALSO WIDENED CONSIDERABLY."

— Shri Ishwarbhai Jivaram Patel

The Problems of the Masses

4

# Translated from the original Hindi

consider it a privilege to be given the opportunity to come here and address you on this auspicious day, a day, which also marks the date on which the state of Lam Gujarat came into being. I am not sure whether I really deserve this honour. Much of my work has been among the underprivileged of our society and in the rural sector. The last twenty or twenty-five years of my life have been spent in villages as a field worker. My major concern has been to promote sanitation in villages and to try to understand and solve the problems that arise from time to time in this sector. Over the past twenty years, the National Institute of Design has established an international reputation while providing facilities for education, training and service in various fields of design. Its increasing interest and involvement with rural and social concerns are of significance, and this trend must be strengthened so that this new profession of design can demonstrate its service and its utility to the masses of our people.

NID has broken away from the outmoded methods of education followed over the past hundred years in India. It has sought to develop a more suitable approach based on Indian needs, while bearing in mind rapid changing circumstances. Methods are now being evolved to provide solutions, which would be acceptable and at the same time satisfy the wants of people in an age when science and industry play an important role. There has to be a conscious and discriminating adaptation of international models and educational aids to Indian conditions and the needs of India's culture, while rejecting

what is irrelevant. This is not an easy task for designers. New technology is bringing about rapid changes and, with it social and economic conditions too are changing. The scope of design activity has also widened considerably.

Actual needs have to be carefully determined and constantly kept in mind while making every effort to achieve economic progress. Solutions have to be tailored to India's economic conditions so that they are suitable for the time and place for which they are intended. This is a process that has to be continuous, and one which will require constant change in the institute's syllabus, teaching methods and facilities. NID's strength has been its ability to innovate teaching methodologies on the basis of need and experience, and it must retain this approach and fight to protect it if necessary, to avoid the unimaginative stagnation which passes for education in so much of our land. The Father of the Nation, Mahatma Gandhi, had conducted a novel experiment in basic education suitable for Indian culture. He had stressed that India's soul lies in the villages and that only in villages would India's culture find true expression. It is an area where folk crafts and artisans play an important role. Women find self-expression and pleasure in decorating their homes. Long before modern articles had entered the home, handcrafted articles provided superbly functional products, which were also, the only means of embellishment in the rural home. Thus practical and spiritual qualities where inseparable, of which the lota is a great example.

At present, the influence of Western design modes continues, and all sections of our society appear to be adopting Western habits and ways of life. Nevertheless, the attraction of traditional, handcrafted products has not diminished and

traditional design is constantly being adapted to modern use. This phenomenon is not confined to India alone, but is one, which has been experienced in developed countries as well. Today one may find reception rooms and drawing rooms decorated with modern furniture, displays of crockery and mechanical toys with nylon curtains and wall hangings on the one hand, and on the other one may also find that doors and windows are decorated with torans, varsakhiya, torliya, chakdas, chandarvas and pirchhois. Elsewhere one can see patara manjusa, polished vessels of brass and copper and large traditional pots. Swords, spears and daggers ornament the walls. Musical instruments like the sitar and veena, representing traditional artistry, find a place of honour. In the midst of material progress, this indicates the strong sentiment that still exists for the inspired creations of the past, which represent our cultural roots. From our state, the purdahs and pirchhoi of Ahmedabad, the abhla-bharat of Kutch, the furniture of Sankheda, the woodwork of Vadnagar and Visnagar, the patara industry of Bhavnagar and various other handicrafts of traditional origin are in great demand at home and abroad.

The rare artistic quality of these artefacts is responsible for this demand. But do today's buyers also understand and respect their inherent functional qualities? All these objects reflect India's traditional culture and indicate the high standard of practical design, which has existed in India since ancient times.

The students of NID have directed their attention to various fields and their basic endeavour is to put design to the service of the common man. For example, an adjustable operation table for hospitals, a wheel chair for the disabled, woolen blankets based on craft tradition, improved office furniture and

equipment, new garments from specially designed hand-woven fabrics, low-cost ceramics, and visual communication aids for schools and health workers are among the projects which have been successfully concluded. It is a commendable fact that after graduation, most NID students continue to place their talents at the service of their own country. How can we ensure that this trend continues, and is strengthened?

Today products of modern industry are various and are often entirely new in concept. They seldom reach the common man. Industrialists may employ the talent and skill of designers to achieve limited objectives. Designers in turn are frequently attracted by the attractive emoluments offered and lose sight of basic social goals, which have to be achieved in a developing society. It is therefore essential that designers be made aware of the various ways in which they can contribute to social progress, and means of support and encouragement devised to attract and hold their talents in areas of greatest need.

During British rule, Mahatma Gandhi led an agitation to boycott foreign goods and promote the use of Indian products. Its purpose was to encourage indigenous manufacture. The movement spurred village craftsmen to maintain and improve their skills. It was realised that cottage based and khadi industries were an effective means of feeding the masses and providing employment to millions. This truth has withstood the test of time and should encourage and inspire today's designers.

Traditional skills do not mean mere duplication of the past. The Panchal community of Rajkot and Ahmedabad has evolved machines, machine tools and accessories of new design, using their traditional skills. These have proved of great use to farmers and rural workers. They are inexpensive and easy to maintain.

The brassware of Jamnagar is not only widely used in ordinary homes but is also in great demand abroad. The simple hand-crafts of Ahmedabad are as important as the largest airliner to the labourer couples that use them. They would appreciate a light, well-designed vehicle, which can be drawn easily while barefoot in the heat of the day. Certainly there is great scope for new design in this field of every day needs for the millions who are underprivileged.

The workman across the road who digs all day for a living would appreciate a tool, which would make his work efficient and less labour intensive. Today's technicians can profitably develop instruments for rural use, which would be both efficient and suitable for the milieu for which they are intended. Machines should be so designed that they are safe, easy to use and can provide a living. Thus it is only by diversifying their activities that designers can hope to reach the masses. Should we not concentrate available design talent for the improvement of the lot of the 50 percent of our population that lives below the poverty line?

There are many areas in which the designer can profitably exercise his talents to assist this sector. Among these are harnessing solar energy for power and cooking purposes, establishing gas plants for lighting and cooking, and setting up windmills to generate power. Why do we not direct our attention to improving the lot of underprivileged communities like the adivasis, for whom even an Indian language is foreign?

Urban school children from affluent families in kindergarten classes play with mechanical toys, which expose them very early to engineering concepts. Surely there is scope for toys for other rural and urban children, which would introduce

them to scientific ideas. If the village craftsman is encouraged to develop and widen the application of his skills in woodwork, bamboo, clay, knitting and embroidery, these could contribute greatly to his economic uplift. Many of NID's projects have demonstrated the designer's role in this process.

The Safayee Vidyalaya had assisted NID in its work, and in 1978, Safayee Vidyalaya was awarded a Diploma of Merit by the International Council of Societies of Industrial Design (ICSID) in recognition of its work. I take this opportunity of thanking NID for its collaboration. Perhaps Safayee Vidyalaya's experience in developing and marketing design improvements in an area of great social need can help and encourage NID graduates in their aspiration of service. It is the outcome of a campaign to identify need, to innovate and test solutions, to market a revolutionary idea and to provide the institutional and individual supports essential to its acceptance and implementation. The sanitary toilet developed by Safayee Vidyalaya is of a new type and the manner in which the design was worked out is interesting. It was developed after seven or eight years of dedicated research. Cleanliness demands the complete removal of all waste and night soil. In villages, sanitary toilets are practically non-existent and women, in particular, find the lack of toilets a serious problem. Even some urban areas have inadequate toilet facilities.

The task of cleaning toilets and removing night soil falls to the lot of one community alone and is one which is shunned by the community at large. This work has been considered a lowly occupation since time immemorial. Night soil was always removed by scavengers in broken baskets, and carried on head. This practice is degrading and has always been subject to

#### Ishwarbhai Jivaram Patel

criticism. Obviously to eliminate the need for human servicing, economic sanitary latrines would be required. Only 250 of the 3500 cities and small towns of India are equipped with adequate drainage facilities. Consequently unsanitary conditions prevail in most areas. Normal urban toilets require an average of 30 gallons of water per person. Today, when water is in short supply, toilet facilities should be devised which would use very limited quantities of water. A ceramic factory in Morvi and a fibreglass factory in Rajasthan have already developed inexpensive Indian style toilet bowls.

The Gujarat government actively promotes the development of suitable toilet facilities and gives financial assistance for the design of improved bucket-type toilets. The Safayee Vidyalaya makes use of this government assistance to train labourers, sanitary inspectors, 'safayee' workers, social workers and others for this purpose. Posters, films and other media have been used to propagate good sanitation. In municipalities and village panchayats, labourers are specially trained to work for sanitation in their own villages. With state government aid and with the cooperation of the municipalities, it has been possible to establish 155,657 waterborne toilets in Gujarat. The World Bank will provide assistance for establishing waterborne toilets in every home in fifteen cities.

The needs of the people using basket-type toilets were identified during the process of research. The practical difficulties encountered during the process of design have been overcome. This has also benefited the scavenger whose status has improved. The project provides a good example of cooperation between the citizen, the municipality, the state government and 'safayee' workers. State government and the health authorities

assisted considerably, not merely with finance but in disseminating the message of sanitation on a wide scale.

NID and Safayee Vidyalaya can continue this work for the benefit of society by designing improved toilets and propagating their use as widely as possible. Suitable dustbins and equipment of various types for the disposal of solid and liquid waste are still required and could be designed. The Bardoli Centre for Improvement of Agricultural Instruments has developed tools for small farmers and farm workers. The Centre has been training engineers and designers to manufacture simple instruments for agricultural use, which can be used by farmers without difficulty. It has provided many opportunities for NID students and teachers.

NID should direct further attention to such needs and through linkages with these and other institutions work to ensure that whatever is designed is used effectively. Market analysis is the first task in any project directed to a particular section of society. Without an understanding of marketing realities, the best design idea can die unnoticed.

Designers should keep in constant touch with dealers in cloth, cooking and other utensils, jewellery and farming equipment. These persons are excellent sources of information in any study of market conditions. The raw materials and facilities locally available in each area where a project is being carried out should be utilised.

To achieve the climate within which the designer can serve society and survive, as a professional will need a comprehensive approach. For this, NID should strive to obtain assistance from the central and state governments, from business establishments and international institutions. If design is to reach the common

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man, the educated and the public at large, a steady source of financial assistance is required. Institutions engaged in rural uplift, cottage industries, the Khadi and Handloom Boards could assist NID in reaching the villager and the underprivileged sections of society. In addition, NID should innovate its own systems to encourage its graduates to serve where they are most needed.

Students who have worked hard during the course of studies at NID to earn a diploma in the fields of industrial design and visual communication should now use their talents for the further development of our society, thereby earning their Institute, their profession and themselves a good name. I wish them all success in this great endeavour.

It has been a pleasure for me to be present amongst you today and to be given this opportunity to express my views, I am grateful to everyone present.





"I HAVE A COMMON MAN, WHO HAS COME TO SYMBOLISE OUR PEOPLE. HE LOOKED FOR ME AND WALKED INTO MY CARTOON QUICKLY, WITHOUT MY EVEN KNOWING ABOUT IT, AND HE HAS STAYED ON SINCE. HE IS UBIQUITOUS. TODAY HE IS HANGING ABOUT IN THE BACKGROUND AT A HIGH POWERED CABINET MEETING: TOMORROW HE IS AMONG THE SLUM DWELLERS LISTENING TO THEIR COMPLAINTS, OR MARCHING ALONG WITH PROTESTERS DEMONSTRATING AGAINST THE BOOM, INFLATION, THE PRICE OF ONIONS, OR JUST WATCHING STUDENTS RIOT ON A CAMPUS.

BUT HIS MOST UNIQUE QUALITY IS THAT HE HAS NOT UTTERED A WORD IN ALL THESE YEARS. I WOULD SAY HE TRULY SYMBOLISES THE MUTE MILLIONS OF INDIA, OR PERHAPS OF THE WHOLE WORLD: A SILENT SPECTATOR OF MARCHING TIME. HE IS TOUGH AND DURABLE AND HAS SURVIVED MANY CRISES AND WARS. HIS SILENCE IS MORE ELOQUENT THAN ALL THE BABBLE ONE HEARS AROUND HIM."

The Art of Visual Comment

Council of the National Institute of Design and all those who persuaded Ashoke to persuade me to address this Convocation. I feel highly honoured now that I have come. But I must admit that, at first, I was reluctant to accept the invitation. I was not sure that I would fit into this sort of formal function. For a while I was torn between the temptation to accept the honour and the fear I might fail to fulfil what is expected of me to deserve it. But it slowly dawned on me that, after all, in my own profession there was a slight degree of visualising and designing and that it would not be out of place for me to mention a few words at the National Institute of Design. So taking courage in both hands, I have come. If you will bear with me for a few minutes I will say a few words about my work. I am a cartoonist, of the satirical variety.

As we all know, from ancient times India has had very highly developed systems of art like dance, drama, poetry, architecture, literature and painting. These skills have left us a rich heritage. Perhaps this pursuit of excellence and constant preoccupation with higher values in all our activities made us neglect somewhat the more practical needs of our defence. Our country caught the eye of every passerby and he coveted its glittering wealth and splendour and promptly returned them and again with an army, and conquered us. But in the perspective of time we find that in fact we took more from our conquerors than we gave them. We even assimilated them into our lives and made them Indians. From the invading Aryans we took the Vedas, and Alexander added to our already mature art of sculpture. From the Moghuls we supplemented our skills in architecture, enriched our poetry, literature, painting, carpet

making and so on. But this amalgam of culture did not destroy earlier traditional arts like Bharat Natyam, Kathakali, classical music, folk songs, and handcrafts, which continue to flourish to this day in their pristine purity.

It is all very well talking about all this highbrow stuff: temples, carvings, carpets, poetry and painting. But where is the business of cartooning in all this, you might well ask. We had to wait for another conqueror to seize that from — the British. The British came, ruled us, and left. During this period, while we did not exactly enjoy the kind of democratic system they practised here and preached back home, yet we were quick, when they left, to introduce it, with all that went with it, including the freedom of expression, free press etc. And one more item we took from them and that concerns me directly: the art of pictorial satire. Cartooning is not indigenous to India. It was in England in the 18th century that the art took root. With the invention of the printing press, cartoons became a very important aspect of political comment. So cartooning is an imported product. It did not exist anywhere in the orient, nor does it to any appreciable extent exists even now, except in India where it began to appear at the turn of the century. It made rapid strides and now has come to stay as one of the factors to reckon with in the daily press.

Of course, in the early days the cartoons, which appeared in the so-called vernacular press, were somewhat puerile. They were just propaganda posters. They always portrayed flaming patriotism and lampooned the alien rulers in a vague and impersonal way, within the permissible limits. The theme of the cartoons was always the same but in different variations: Bharat Mata in imperial chains. Bharat Mata under John Bull's Jackboot. Bharat Mata dragging the deadweight of colonial rule and so on. But with the dawn of political awareness, jingoism in pictures yielded to political satire, John Bull vanished from the cartoon, making room for the flesh-and-blood representative of the crown: the victory himself. Likewise the symbolic Bharat Mata gracefully made way for our full-blooded national leaders. Subtlety, satire and sophistication now took the place of crude, standard attacks on the establishment.

Now, I have to pause and beg to be excused for becoming a bit autobiographical from this point on, so as to explain nearly half a century of my own involvement with this art.

Right from childhood I have been passionately fond of drawing, painting and cartooning in particular. It was one of the minor mysteries in my family why I was so obsessed with these! I also had an advantage to fuel my ambition to become an artist. Apart from very understanding parents, our home in Mysore received by sea mail (no aeroplanes in those days) nearly every known illustrated magazine from London: Punch, Tit-Bits, Strand, Bystander, Pear's Tattler, Sketch, Sphere, Illustrated London News and what-have-you. Most of them are, of course, defunct now, like all good things. I used to spend hours turning the pages of these magazines and marvelling at the exquisite story illustrations, painting, sketches and cartoons. Even before I could read and write properly I became familiar with the names, styles and techniques of those artists. Then I myself began to try my hand at drawing; I used to sketch the people and objects around me. My elders and teachers said I was not doing too badly. As I grew, my passion to draw grew too. Soon I began to freelance for some of the local magazines.

I was still a student when the War broke out. Now, Hitler and Mussolini gave me a chance to turn my hand to political cartooning. At the time I left college, the whole nation was busily engaged in wrenching freedom from the British. Our political activities stimulated my imagination like a wonder drug and propelled me on towards becoming a political cartoonist. I saw infinite scope to exercise my talent. Colourful figures strutted about on the political stage. The oddity in their features, the eccentricity in the style of their dress, their shapes, colours, sizes — all that one saw in this crowd could not have been found anywhere else in the world!

Gandhiji was a cartoonist's delight! His generous baldhead, the Mickey-Mouse ears, the toothless puckish smile, and above all his utterly original manner of dressing — winter or summer, London or Saurashtra — were all characteristics designed to help the cartoonist. And Jinnah was considerate to the caricaturist to an equal extent but in a different way. His thin figure, monocled eye, immaculate sartorial habits, the ever-present ivory cigarette-holder stuck between his thin lips — what more could a caricaturist ask? C.R., Azad, Radhakrishnan, V.K.K, Patel and a host of others offered themselves to the cartoonist with some very catching oddity or other in their dress, manner or look.

Nehru alone gave me some difficulty. His personality simply did not lend itself to caricature. I struggled many years in vain to capture him. Finally by sheer accident I caught him. One day I drew him and I forget to put his cap on. And suddenly he came alive! Since that time I never drew him with his cap on. I later had an opportunity to explain the mystery to Nehru himself when he asked me why I caricatured him the way I did, without his cap.

Like our politicians, our politics was equally stimulating to a budding cartoonist. The division of the nation into India and Pakistan, drafting the constitution, the general elections, the teething troubles that went with all these fired the imagination of the cartoonist.

There were innumerable amusing asides to this drama. There were faddists who wanted to give priority to the banning of cow slaughter over education and employment. Some wanted total prohibition to drive out the evil of drink in this country even if it meant ushering in the greater evil of illicit distillation, bootlegging and other kindred crimes. And then there were Hindi zealots who naively believed that the moment the Union Jack was lowered everyone would burst out talking and thinking in Hindi. The disillusionment that followed resulted in extensive damage to transport systems, railway signboards and millions of rupees worth of public property. We rearranged the states on a linguistic basis. While about it, the old names of some of them were changed to new ones. Then the renaming frenzy took over. Many towns, places highways, streets, by lanes and even pavements were named after national heroes of the past, present and those who were to come.

With all the familiar age-old names and landmarks gone, the people felt as if they had suddenly shifted out to a strange land, having moved nowhere really. All these, of course injected a great deal of vitality and added colour to our political cartoons. Compared to this, post war western world looked dull and tame. England and Europe were putting on their gray, worn out coats and hats and limping back to a monotonous system standardised over centuries, unlike ours.

There were other curious dimensions to our politics. We had three broad political parties to start with: the Congress, the Socialists and the Communists. Just out of college, fresh on the

making fun of all these parties and their squabbles. All of them had the same aim: removing the great Indian poverty. The Congress with its clout in terms of money and mass appeal gobbled up the socialists and emasculated the communists. I was afraid for a while I would have to get all my ideas from a single party. A cartoonist thrives best in situations full of challenge, adversity, opposing forces and the clash of ideas. There would be no fun dealing with a single mammoth party engaged in minor skirmishes on local issues, and with regional bullies. But my fear was unfounded. The Congress itself divided, subdivided and multiplied into many parties, and many brand new ones took birth. The number of these parties grew to be so many it threatened to compete with our very population.

Now a few words about our people from the point of view of a cartoonist. It is a big problem for the cartoonist to decide on a character to represent a typical Indian. Does he look and dress like the north Indian, south Indian, Bengali, Assamese, Malayali, Maharashtrian, Gujarati or Punjabi? For a cartoonist, time is of the essence. A good many precious minutes are lost if he has to draw a huge crowed consisting of all these characters every time he has to comment on an issue involving the people at large. So the cartoonist has to create a 'common man' to represent the masses. It is easy in the West where dress and appearance are more or less standardised. Not so here. At one end of the country you have those for whom a turban is a part of their anatomy and the other extreme end you have those who seem to be clothed only in anatomy. And again, a textile tycoon might dress like a mango seller, or a scholar might easily be mistaken for an impoverished temple priest.

I have a Common Man, who has come to symbolise our people. But luckily I did not look for him. He looked for me and walked into my cartoon quickly, without my even knowing about it, and he has stayed on for over thirty-six years. He has also a rather maternal-looking spouse, who makes her appearance off and on. He is ubiquitous. Today he is hanging about in the background at a high powered cabinet meeting: tomorrow he is among the slum dwellers listening to their complaints, or marching along with protesters demonstrating against the boom, inflation, the price of onions, or just watching students riot on a campus. Another time he is at the state banquet for a visiting V.I.P or at the airport among the receptionists to receive a foreign dignitary, or standing in the queue in the rain to collect his quota of sugar, or gas or kerosene.

But his most unique quality is that he has not uttered a word in all these years. I would say he truly symbolises the mute millions of India, or perhaps of the whole world: a silent spectator of marching time. He is tough and durable and has survived many crises and wars. His silence is more eloquent than all the babble one hears around him. I hope that in a world, which seems to be bent on battering him down he will survive, and that the cartoonist who champions his cause will continue to flourish. After all a cartoonist is inspired by disorder, complaint, confusion and chaos. I am glad that the wise men and women who mind the important business of running this world have more than taken care of the needs of the cartoonist. They seem to have given top priority to his professional demands. And India in no way lags behind the rest of the world in this respect.

Let me conclude now with good wishes to you all. May you succeed in your chosen career.





"IN ONTOLOGICAL TERMS, DESIGN IS FUNDAMENTAL, THE OPPOSITE OF IT BEING CHAOS. AS BUCKMINISTER FULLER PUTS IT, "THE UNIVERSE IS SUMTOTALLY A DESIGN INTEGRITY. SNOWFLAKES ARE DESIGN, CRYSTALS ARE DESIGN, MUSIC IS DESIGN, AND THE ELECTROMAGNETIC SPECTRUM OF THE RAINBOW COLOURS ARE DESIGN, PLANTS, STARS, GALAXIES ARE ALL DESIGN ACCOMPLISHMENTS. (SO ARE) THE GENETIC CODE PROGRAMMES OF ROSES, ELEPHANTS AND BEES. "IN THE PRACTICAL WORLD AS WELL, DESIGN IS UBIQUITOUS. EVERY DAY OF OUR LIVES, WE ENCOUNTER IT IN A HUNDRED THINGS. CONSTANTLY, WE ARE BENEFICIARIES OR VICTIMS OF DESIGN. EVERY HUMAN BEING IS A DESIGNER IN SOME SENSE. DESIGN IS OF THE STUFF OF LIFE."

Designers as Part of India's Life

would, at the outset, like to pay my humble tribute to the memory of Prof. Ravi Matthai. He was the chief architect of the IIM, Ahmedabad and a pillar of strength to the NID. Over the years, my meetings with him were occasional but they never failed to impress me with his intellectual honesty, humaneness and humour, all of which are so evident in his Convocation Address at the NID in 1979. He will be missed deeply and remembered with lasting affection.

My first contact with the NID took place about a decade ago when I was working in Delhi as Special Assistant to the Union Minister for Industrial Development. I then had an opportunity to find out what NID was meant to be and the kind of difficulties it had run into in the first decade of its existence. The Review Committee under Shri Romesh Thapar was set up at that time and, if one may say so, the institution was re-nationalised. Since then, I have kept in regular contact by reading your annual report and I have also had the opportunity to visit the place on more than one occasion. It has been a most pleasing experience to notice the extent to which the activities of the NID have grown and diversified in this relatively short span of about a decade. When, therefore, Shri Ashoke Chatterjee used his cajolery and cunning to get me over for this Convocation, unworthy as I felt, I was not an entirely unwilling victim to his designs.

We are gathered here to congratulate and to extend our very best wishes to the graduates of the Professional Education Programme. They stand today in the state of transition. For the past five and a half years they have studied design as a discipline. In the future that faces them, they would have to practise design as a profession and obtain from it a means of

livelihood. This does not, of course, mean that their education has come to an end, only that for them learning hereafter will largely have to be by doing and in the school of life. On an occasion such as this, one would naturally like to reflect a bit both about design as education and above the practice of it in the economy and society in which we are placed. Each of these are vast subjects. For my part, to use the imagery of Kamban, I feel like the cat, which with its little tongue, tries to lick the great ocean of milk. The only defence will have to be that, perhaps, there is no great harm in leaving the ocean unexhausted so long as the cat has its fill and those watching it are not too bored.

In ontological terms, design is fundamental, the opposite of it being chaos. As Buckminster Fuller puts it, "The universe is sum totally a design integrity. Snowflakes are design, crystals are design, music is design, and the electromagnetic spectrum of the rainbow colours are design, plants, stars, galaxies are all design-accomplishments; as are the genetic code programmes of roses, elephants and bees. "In the practical world as well, design is ubiquitous. Every day of our lives, we encounter it in a hundred things. Constantly, we are beneficiaries or victims of design. Every human being is a designer in some sense. Design is of the stuff of life.

As a field of study, design has certain, distinguishing characteristics. I would like to touch upon two of them in particular. The first is the discipline of detail that it imposes. By definition, no designer can escape translating his concept into detail. This statement should be so obvious that as designers you may tend to take it for granted. Yet, in many other spheres of activity, where concern for detail should be equally paramount we find that concept and detail are rarely viewed in their integral

relationship. Public policy is an important example of this neurosis. At a policy level, there is no lack of schemes, announcements and pronouncements, which are meant to tackle the economic and social problems of India. Yet there is, as we all know, a yawning gap between these intentions and what actually happens on ground. Numerous evaluations have shown that the articulation of policies in terms of programmes, procedures, legislation, implementation instruments and monitoring is rarely, if ever, adequate. The lack of concern for design results in the inability to translate words into deeds. Marx gave an exact description of this deepseated malady when, referring to the bureaucracy, he said: "The top entrusts the understanding of details to the lower levels, whilst the lower levels credit the top with understanding of the general, and so all are mutually deceived." This dichotomy between the general and the detail is not confined to the bureaucracy. In many academic disciplines as well, notably in the social sciences such as economics and sociology, it is not uncommon to encounter impressive paradigms and overviews with scant attention to the detail on which one would expect them to rest. Woods get described when sometimes there are not even bushes, let alone trees behind them. This divorce of form from the functional cannot happen in design.

Apart from the discipline of detail, an education in design is valuable for another major reason. The designer is necessarily a multidisciplinary person. He has to combine a vertical specialisation in materials, tools and processes with a horizontal concern for requirements of use, economy and appearance in the final product. To do so successfully, he will have to interest himself in a whole gamut of disciplines: aesthetics, history,

sociology, culture, economics and so on. His mind will have to be well and truly enriched if the best combinations of form, function and utility are to be realised.

Design is thus basic to the universe and of universal application. It combines art, science and economics. It sharpens the mind and, at the same time, widens the consciousness. Students of such a discipline are truly privileged.

Education has to continue lifelong. But life regrettably is not all education. It is also — alas — earning a livelihood. Livelihoods are earned and professions get practised within particular social and economic environments: it is to a sketch of this context that we must now turn. At the time of my own graduation, some thirty years ago, a multinational oil company, perhaps as a PR move to stave off nationalisation, had popularised its motto, which claimed that it was "In India's life and part of it." This is a useful motto and I would like to explore what it would mean now for a designer to be in India's life and to be part of it.

For the purpose on hand, we will have to have a working description of India. Etymologically, the word "comprehend" means, "hold together." India is indeed difficult in this sense. Its land mass is continental; in population, the country is the second largest in the world, the number and diversity of religions and beliefs, of cultures and traditions, of language, of climate, cuisine and dress are well known. The historical experience of the country extends to millennia. Besides, as Nehru described it once, this history exists contemporaneously as in a "palimpsest' i.e. series of writings or engravings in which the earliest ones, while distinct in some measure, have been effected to some extent by later inscriptions.

In its economy as well, India is not one but many. There are 125 countries in the world with populations of 4.2 billion; their average size is about 34 million. Representative countries of this size would be South Korea or Spain or Iran or Poland. Within India, Gujarat has about the same population. Taking this as a unit of measurement, India can be viewed as composed of twenty such 'average countries.' The each of these units let us assign a reasonably homogenous internal economy in terms of the assets. Incomes, levels of living, production relations, and other socioeconomic characteristics of population and number them from the richest — India 1 or 11 to the poorest, India 20 or 120, 11 to 120 no doubt relate to and interact with, each other in may ways and at many points: it is not a simple case of dualism. However, the fractionalisation of India in these terms might help us to understand certain distinct differentiations a little better.

One could re-group 1<sub>20</sub> to 1<sub>11</sub> or the lower ten units into say, R-India. They would consist of urban and rural mass, but substantially the latter, who qualify as the "absolute poor." Household incomes in R-India would not be sufficient to provide two square meals a day throughout the year for every member of the family. Effective demand in those economies would be mainly for food and following that, simple textiles, a bare shelter, some pots and pans, and sticks of furniture, and other basic necessities. The lowest rung viz. 1<sub>20</sub> would consist of destitutes, most of them old or handicapped, who do not participate in mainstream economic activity at all. About a fifth of R-India may be in urban areas eking out a livelihood in petty production or trade or as casual labour or as domestic servants. The rest would consist mainly of agricultural labourers with

little or no land, small tenants, marginal farmers, craftsmen, weavers, fishermen and other such whose assets and incomes are so low as to retain them in a condition of unrelieved poverty. R-India may stand for rural or the Real India for the Gandhians. More technically, we can take it to mean Retarded India.

Proceeding further, one might group the next nine units i.e. 1<sub>10</sub> to 1<sub>2</sub> in M (for Middle or Mobile) — India, M-India in its composition and internal characteristics will not be as homogeneous as R-India. The difference between 12 and 110 could be quite considerable and the lower echelons will shade-off into R-India. In general, however, one could find many aspects of liveliness and growth in this great middle mass. The earning population may be in government or in the public sector or in organised sectors of private industry and trade, in good part urban, literate and articulate, and relatively mobile among jobs and locations. Finally U (or Uppermost)-India should be quite familiar since most of us here belong to it. It includes all those who pay income tax, those who do not because they are the rural rich or operate in the black economy, higher civil servants, academicians, professionals, mediapersons, not to speak of leading film stars (whether chief ministers or not).

The traded market for design is largely confined to U-India and to the upper levels of M-India in terms of consumer durables and non-durables, producer and intermediate goods, which are needed to make them, and a variety of services such as are provided by the tourist and travel trade. The numbers of manufacturers and services involved in the markets may not be large, but product differentiation is high and ever increasing. A recent survey, for instance, identified fifty leading items in consumables (e.g. detergents, textiles, toiletries, soft drinks,

confectionery etc), consumer durables (e.g. air-conditioners, refrigerators, TV sets, radios, scooters, watches, household gadgets) and in intermediaries, capital goods and services. The total number of brands involved in these 50 products was as many as 9000 or an average of 180 brands per item. This should not be surprising. In the upper economies of India, incomes are high enough not only for the satisfaction of basic needs but also for being spent on wants. The latter are continually generated by our "entrepreneurs" through the refinement and differentiation of products and through advertising. It is in this context that the designer will have to define an identity and integrity for himself in the marketplace. It might be tempting to take a socalled 'neutral' position in terms of saying:" I do not care whence and how the demand arises but only about my own design-contribution. "Justification might also be sought for catering to luxury, pride, envy, vanity and fickleness on the ground that these provide employment to the poor, using the words of Dr. Mandeville in his Fable of the Bees:

"......Whilst luxury

Employed a Million of the Poor,

And odious Pride a Million more:

Envy itself, and Vanity,

Where Ministers of Industry:

Their darling Folly, Fickleness,

In Diet, Furniture and Dress

That strange ridiculous Vice was made

The very Wheel that turned the Trade"

The designer who adopts or slips into such a 'neutral' stance should however be aware of the costs and risks associated with it. 'Neutrality' of this kind will mean that he will have to

forswear any claim to be in India's life and part of it. He would have to abandon a full citizenship of the country and instead be content with being a mere technician in U-India. The selfserving argument that the rich have their uses for the poor will not be found convincing. Above all, the designer who confines this horizon to the markets in U — or Upper M-India is liable to attract Victor Papanek's indictment of industrial design in his Design for the Real World when he says: "There are professions more harmful than industrial design, but only a few of them. And possibly only one profession is phonier. Advertising design, in persuading people to buy things that they don't need, with money they don't have, in order to impress others who don't care is probably the phoniest field in existence today. Industrial design, by concocting the "tawdry idiocies" hawked by advertisers comes a close second. Papanek is, of course talking about the United States. The situation may yet be not so bad here and in any case in a land with Karma-cola gurus and astrologers; advertising may not be the phoniest profession. Yet, mutatis mutandis, his warning deserves to be taken seriously by any designer who caters only to the burgeoning demands stimulated by U-India. Undeniably, it is in the nature of this market that wants are constantly created and "tawdry idiocies" are continually "concocted." To the designer operating, solely or mainly, in such a market, the propensity to silliness is a grave occupational danger. What can the designer do to escape this grim possibility, given the fact that in R-India and in most of M-India, effective demand from which he can obtain a livelihood is so low and poorly growing? The short answer to the question is that while the demand for design in R-India is low in terms of privately purchased goods, the role for design

is very significant. The designer can help R-India in three principal ways. He can help through design to enlarge the markets — in U and M India and for exports — for the products of R-India: crafts, textiles and a whole host of other items. In this way, more purchasing power can be transferred to R-India to effectuate its own autonomous demands. The R-India to effectuate its own autonomous demands. The Jawaja project, under Prof. Ravi Matthai's leadership provides an outstanding example of this kind of intervention. Secondly, design can reduce drudgery and improve productivity for the workingmen and women of R-India. There is vast scope for this in agricultural implements, artisanal tools, equipment for gathering and moving materials, simple household appliances, construction and so on. Thirdly, design can contribute greatly to goods, amenities and services privately or publicity consumed e.g. educational materials, hand pumps, and above all toilets, following the example of Ishwarbhai Patel.

In principle, NID has been aware of all these possibilities and this is the reason why I have not elaborated on them. In recent years, it has also attempted a great deal in these directions and it has the potential to do much more. However the needs of R-India are so large, varied and scattered that whatever a single NID will be able to do is bound to be pitifully small and almost tokenistic. We need at least 30 to 50 NID's all over India. There is danger also in NID being a unique Institution in this field in the public sector. It could get unduly diverted into working for the Government, leaving it less and less time to work for the people, a contradiction on which I shall not dilate on this occasion.

In any event, design in its social context cannot be left to

institutions alone. It has to become the personal creed of every designer throughout his or her working life. In India as it is today, the practice of such a creed will not be easy. Livelihoods will largely have to be earned in the upper Indias but it is R-India that provides the most challenging opportunities for both work and satisfaction. Papanek speaks of a Finnish word he discovered dating back to medieval times. The word is Kymmenykset which means a tithe, of usually 10 percent, paid to the needs of the poorest members of the community from one's earning. He recommends that 'being designers we can pay by giving 10 percent of our crop of ideas and talents to the 75 percent of mankind in need." We do not have to go quite as far as Finland for this concept, nor does the word for it have to be so difficult to pronounce. In rural Tamil Nadu, we have the tradition of mahimai which literally means honour or tribute. It is the tribute to the common good which the individual pays in terms of a portion of his professional earnings. I am sure that similar words and concepts are to be found in every part of India. It has to be your personal decision whether you will pay mahimai or not; and if so, to what percentage I can only hope that U-India will provide you with a livelihood large enough to pay a substantial mahimai to R-India and that you will keep this livelihood small enough to avoid being led into temptation.



"DESIGN IN ITS BROADEST SENSE, MAKES FOR FULLER UTILISATION AND ALSO FOR GREATER AESTHETIC SATISFACTION. IT IS COMMON EXPERIENCE, HOWEVER, THAT NEITHER UTILITY NOR AESTHETIC QUALITY BY THEMSELVES ULTIMATELY MEET INDIVIDUAL OR SOCIAL NEEDS. OFTEN, OBJECTS THAT HAVE NO APPARENT USE SURVIVE JUST AS SUCH AS THOSE THAT HAVE. AT ONCE, THE WORLD IS A MUSEUM OR A LIVING-BREATHING UNIVERSE. NEITHER UTILITY NOR QUALITY ARE THE REASONS WHY ANYTHING SURVIVES. ONLY INDIVIDUAL AND SOCIAL NEEDS SURVIVE SINCE THEY ARE CONSTANTLY CHANGING AND EVOLVING."

— Shri Shyam Benegal

Values in a Changing Society

his is the very first time I am addressing a convocation ceremony. It has been my impression that convocations are solemn, formal and forbidding occasions and are usually addressed by learned people. If I show trace of nervousness it is because I can neither claim to be learned nor have I lost my fear of solemn occasions.

Not being a speaker in the conventional sense, or a teacher in any formal sense, I am a little uncertain about my ability to articulate the somewhat fragmentary experiences of mine gathered in the course of my work as a filmmaker. Primarily, I see the work of making films as the exercise of a craft. I am aware that all of you here are students of design. I presume that the various disciplines you have learnt here are to be applied to the everyday job of living. The belief is, perhaps, that this job of living can be made more useful, more convenient, and more complete or any way better than it is.

Design in its broadest sense, makes for fuller utilisation and also for greater aesthetic satisfaction. It is common experience, however, that neither utility nor aesthetic quality by themselves ultimately meet individual or social needs. Often, objects that have no apparent use survive just as such as those that have. At once, the world is a museum or a living-breathing universe. Neither utility nor quality is the reason why anything survives. Only individual and social needs survive since they are constantly changing and evolving. Frequently, time makes even today's kitsch into the art of tomorrow and totally useless objects become valued objects for future generations. The quality of anything that is produced by man is often recognised not by its presence but by its absence. When a work of quality exists, it is taken for granted. Perhaps that is what design is all

about that it should not stick out like a sore thumb but blend with the environment until it becomes an extension of life itself. Designers and artists who interfere with the environment tend to create monuments to themselves.

It is not uncommon for an artist or a designer to ask himself whether he should be responsible only to his own creative compulsions; whether he should recognise it as his duty to be valued or appreciated by ordinary people, or whether he should consider national aspirations as essential to his work. It has been suggested, particularly in western societies, that the creative compulsions of an individual are the only ones that result in work of quality. How does one recognise quality? Does it only refer to good taste or does it emerge from the deep-seated values of society? Traditional crafts are usually given as examples of excellent quality and taste, and the reason offered is that such work has developed harmoniously in its environment, evolving with the changing needs of that society. Obviously, these needs are directly related to the values of society.

Value systems change when there are interventions by way of industry and technology, causing dramatic imbalances in the texture of society that cannot be easily corrected by traditional responses. Suddenly, decisions regarding values are imposed on individuals constituting the society. Contemporary design too, is a result of such decisions forced on individuals who either attempt to repair fractured traditions or try out completely new solutions for problems created by changing value systems.

A fresh concept of design becomes necessary to make for harmony. It is in these circumstances that the rhetorical question such as the one I mentioned earlier even exists. The artist or designer is, therefore, not simply motivated by his or her own creative urges or even more socially laudable ones such as one's duty to people or to national aspirations. The designer is compelled more by the needs that are palpably felt in the environment, to which he is forced to react with his creative abilities. How the designer reacts and meets these needs and the sensibility, with which he does so, is the essence of all design. It is also recognition of the fact that whatever you create is shaped by the environment in which you work. The content has to find its form organically in terms of the need it fulfils. If you force the content to fit a hypothetical form, you end up by creating something that is essentially self-defeating. Apart from distorting the content, it may even obscure it.

At the risk of being considered simple minded, I would still like to say that need shapes the content. But needs themselves, particularly in the arts, are not felt simply. They reflect varying cultural attitudes on different social and individual levels. Some are felt in a fundamental way, others are felt on the basis of different kinds of experience and learning... some historical and some mythical. In most cultures and their numerous subcultures, the needs are expressed and met in both tangible and intangible ways. They often crystallise into symbols and mnemonics imbued with deep emotional feelings. It is when universal meanings emerge from these that they become cultural values and transcend immediate needs.

Let me give you some example. In Chhattisgarh, like in most places of India, people sing together when they transplant rice. The songs are usually improvised. The stanzas may consist of topical news, poetic feelings or local gossip. The refrain, however, remain constant. The constant of the refrain is:

If you plant rice when water in the field is above the ankle,

the rice will rot.

If you plant when water is below the ankle, it will burn.

A simple instruction that reminds people working in the fields that water should be ankle deep: this is the utilitarian aspect of the song. But everything else in the singing meets a cultural need: the need to be entertained, the need to express oneself and the need for companionship.

Then there is traditional song for children that explains basic principles of science or rather unlock some of the mysteries of life. The content of the song is simple yet poetic. A lake falls in love with the sky. Burning with desire, the lake evaporates and becomes a cloud to meet its lover. But once in the sky, the cloud finds nothing but emptiness. Grief-stricken, the cloud dissolves in tears and that is how rain is caused. The children's song not only meets the needs of science education but also entertains as well in an emotionally moving way.

All good design consists of these qualities. A sense of design is integral to all traditional societies. In other words, traditional societies are culturally literate (to borrow a term from Indira Gandhi who used it to define the existence of a sense of design, or the lack of it, in societies). When a sudden intervention by new technology or industry takes place in a traditional society the first casualty is cultural literacy. Technological interventions are not isolated events nor do they come by themselves. They too, are products of a culture and when they intervene, they bring their entire socio cultural package with them. Traditional societies often find it difficult to absorb or cope with these interventions.

Similarly, traumatic socio cultural stresses are felt with there is a swift introduction of mass communications systems as is

the case in India, today.

Unlike interpersonal communication, which is a two-way system between people, mass media are one way systems. Only the people who control the systems have access to them. The largest number of people find themselves deprived of such access. The lack of access makes society easily vulnerable to mass communications systems. Cinema and television, in particular, derive their power from this ability. In the normal course whether mass media are used to disseminate information, or for advertising goods and services or even to provide entertainment, the process is manipulative.

By their very nature, mass media turn people into spectators, less able to participate, unlike inter-personal media which involve them as participants. This in turn reduces people's ability to take their own counsel, inhibiting their power of volition.

When cinema came over 80 years ago, it remained for long in urban India where it replaced most other performing arts, both folk and classical, absorbing the earlier forms and replacing others such as the urban theatre. It also took what were traditionally considered the necessary emotional elements for entertainment, namely the Nava-Rasas. Perhaps none of this was done consciously. When it spread to rural areas, it responded to the entertainment needs by borrowing from well-known epics and mythology to develop a whole genre popularly known as mythologicals.

The overall motivation in the cinema was to make films that relied on commercially successful entertainment ingredients. This was inevitable as the primary concern of cinema was and is to provide entertainment. Societal needs that were felt and met by a variety of entertainment forms could not possibly be

provided by just a single medium like film. So the cinema tended to lull these needs rather than meet them. This obviously has made the cinema an escape valve from any kind of social reality. In some ways, it has become a method of perpetuating a void. Norman Mailer has referred to societies that are totally dependent on their mass media rather uncharitably, as being "cultureless" since they perpetuate a sense of void.

Since the cinema has the power to manipulate, it tends to get audiences into a state of passive acceptance. Yet it does other things too. The response of the audience is not without reference to its own collective experience. Films can either perpetuate collective prejudices and be wish fulfilling or provide new cultural references and chart out new areas of experience. If a filmmaker is unaware of this power of the medium, he may unwittingly retard or accelerate a change in social values depending on his sensibility, level of awareness and ability.

My involvement with film began in advertising where it is used to promote goods and services. It is an area where the medium is used to inform and persuade an audience in favour of any particular product or service. It is a conscious attempt to alter choices and create demands. However dubious this might sound it gives an indication of the possibilities and of what the medium is capable of doing. This ability of film to persuade and manipulate can be used to activate awareness in areas of instruction and learning. It can be successfully used to meet learning needs of people. Some part of my work in recent years has been in this sphere. The large part of my film activity has been in the area of entertainment films.

I have, with varying degrees of success, attempted to articulate the socio cultural needs of the environment in which I live,

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rather than cater to the demand for formula films that have the effect of tranquillising any kind of social or personal enquiry. It has also been an attempt to broaden the definition of entertainment to include a wider area of social experience and reflection.

With the phenomenal growth of television in our country, mass media have developed the capability of replacing most other forms of interpersonal and even mass communications, particularly in rural India. Although it has added to the information resources tremendously, it will inevitably destroy the different local forms of entertainment and learning, as well as the various events of social participation. Television, unlike the cinema, has both along with the ability to offer total social access to this incredible communications medium in a manner unknown before. What is required is a concept that would take accessibility as the fundamental basis on which to design the use of this medium to meet the innumerable societal needs that already exist and those that will crystallise and grow in its wake.

Ultimately, the main purpose of design is perhaps, to help society become more articulate and less dependent and to make any new technology freely accessible — in other words, to give back to people their voices.





"BY EXHORTING YOU TO DREAM, THIS IS WHAT I CHOOSE TO WARN YOU AGAINST. AT THE SAME TIME AS YOU PUT YOUR FINGERS INTO THE REALITY AROUND, YOU NEED ALSO TO EXERCISE YOUR MINDS ABOUT PROBLEMS BEYOND THEM, EVEN HYPOTHETICAL. THAT IS HOW A CONCEPTUAL STRUCTURE OR PHILOSOPHY IS BORN – JUST IMAGINE THOSE HERMITS OF OLD, WHO LIVED IN LEAF HUTS AND SURVIVED ON ROOTS AND BERRIES, AWAY FROM CROWDED STREAMS OF LIFE, RELATIVELY UNDISTURBED EXCEPT BY AN OCCASIONAL RAID BY AN ASURA VANDAL; WHAT NEED HAD THEY TO THINK OF LIFE AND DEATH AND ALL THOSE EXTREME HUMAN SITUATIONS THAT CHALLENGED OUR UNDERSTANDING? BUT IT IS THAT CONCEPTUAL STRUCTURE THAT GREW OUT OF THEIR DIALOGUE WITH THEMSELVES THAT STILL SURVIVES AS THE BEDROCK OF INDIAN PHILOSOPHY. IF YOU WANT A PHILOSOPHY OF DESIGN YOU HAVE TO UNDERGO THE SAME EXERCISE."

- Prof. K G Subramanyam

The Larger Perspective

llow me to start by saying that I feel deeply honoured by this invitation from the National Institute of Design to address the Convocation this year, which I understand is its Silver Jubilee Year. I feel doubly so when I remember that I am sort of an insider and have been asked nevertheless. I take it to mean that familiarity has not yet bred contempt. True, this Institute's first Convocation was also addressed by an insider, whom I, and I am sure many of you, deeply miss — that is, Ravi Matthai. He was a friend, philosopher and guide to this institution during some of its most crucial years. I still recall his convocation address, as some of you might too, especially the way he described, very beautifully and amusingly, the transformation that a young person goes through in an institution like this, taking recourse to Hans Andersen's tale of The Ugly Duckling. The gist of what he said was that taking training in an institution like this is an exercise in self-discovery, through which the 'ugly duckling' realises that it is, in truth, 'a swan'.

A swan means more to an Indian than to Hans Andersen, to whom it was probably no more than an elegant, long necked water bird which, if it kept its mouth shut and did not climb out of the water, could be considered the very embodiment of grace itself. But to an Indian the swan (or hamsa) is the supreme symbol of discrimination (meaning right judgment), having the fabulous power to separate milk from water, which is to say, the real from the dross or the refined from the crude. So, in our country, men of the highest discrimination or wisdom are called 'paramahamsas'. The swan is also in our iconography the vehicle of Saraswati, the goddess of learning, enlightenment and refinement, so it will be only natural for

one to expect that each of you out-going graduates will be such a vehicle. If you do not appreciate the idea of a goddess riding on your shoulders you can take her off and keep only the qualities she represents. These are the very qualities that give a human being his special status in creation. Together they weld into a kind of nimbus that floats above one's head and sheds its light on whatever one thinks, says or does.

I see such a light on your faces. I have seen it on other faces too, of young people who finish their education every year and gear themselves up to face the challenges of life. The society you will walk into and the circumstances you will come against will try their best to rub this light off your faces, if they can. But do not let them do it: it is the best asset you have in today's world. That is if you want to do something with your future, not just put up with it. You may ask me: In what does this light consist? In my view, in the capacity to dream. By which I mean seeing more than what is in front of you and visualising a world that is better than what is there. This is the greatest blessing conferred by Saraswati or, if you like, that nimbus I mentioned before. It liberates you into the feeling that you can, if you want, reshape this world. By acquiring learning, which means a perspective on things as they are or were and enlightenment, a perspective on things as they should be and refinement, a perspective on how best to use your inherent faculties, you acquire the power to design a world for your future in the place of what world there is. If our ancestors did not dream in their time we should still be on those primeval dunghills they started with, not these stupendous edifices of culture we have come into. This is known to most and so well known that it is hardly ever mentioned. So we are often on the verge of forgetting it. That is why

I though I might as well remind you about it today.

I do not know whether dreams are the kind of things that are talked about in a design school. Most probably not, at least in the sense I have mentioned: or even if so, not quite so often. It could be that your marketing specialists have talked to you about dream as one of those human susceptibilities you can play upon; or your psychologists have classified it with one of those mental processes that lead to random association and non-linear thinking, during a course on incentives to innovation. Outside of these, a design school is bound to be taken up, even oppressed, with a sense of reality. A designer has to serve the real world that is. He has to answer existing demands and solve existing problems.

And most of these, namely the demands and problems, relate to small parts or details of a total matrix, he has no brief to interfere with. So the jobs that are waiting for you when you step into the world will be, more often than not, in the nature of a little tinkering, a little patching up, a little replacement, sometimes a little window-dressing of what is there already. They will be down to earth and carry no romantic aura, leave alone give you a chance to make an earthshaking innovation.

Many of you should know this yourselves. If you go with an ailment to a doctor and he tries to talk you into replacing a big part of your body's mechanism straight away you are sure to take to your heels, even if you are thoroughgoing dreamers and given to think always of drastic solutions to things. The doctor may have convincing reasons to suggest this, but regardless of that you will not readily lend your body's mechanism to him for experiment. But, why would you not do so? Because for

you, that is the only mechanism there is. If it is changed, it has to be changed in little bits and pieces, not all at once. In fact, for all our talk about revolution, all the great changes in this world have come about this way, through a sequence of numerous little changes.

You may then ask me why I mentioned the dreams to start with. Precisely for this reason. Since by the force of circumstances we shall be taken up with the little, we may most likely forget the big. That will be disastrous. To explain, let me go back to the image of the doctor again. Each kind of doctor has a total view about the nature of the human body and its health. The allopath has one kind, the homeopath has another while the ayurvedic and yunani physicians have their own particular varieties. Even if the advice or treatment that a doctor gives is a selfcontained packet bound up derives its logic from a total vision, at least on the part of the doctor. So the little he does is in the background of the big. But this is not the case with a quack. A quack knows only the little formula he has picked up somewhere, not the total thinking that goes behind it. Sometimes by a happy coincidence his nostrums work, at other times they miscarry; but he has no way to know why, in either case. (And I need hardly tell you that amongst designers too there are doctors and there are quacks).

All activities of a civilised human being get their meaning from such a total view or vision or, when they develop a decided ethic, what we call a philosophy. Today we talk of economic philosophies, political philosophies, certainly philosophies of life; and action oriented aspect of life will come to have a philosophy sooner or later, be it science or art or design. But before talking about it let me complete the present

argument: philosophies are configurations of ideas which give a considered perch or position to single acts or concepts and marshal them in a total direction. Within such configurations the acts become a little more than what they are. While doing why they are meant to do, they also carry the flag of this vision. And inform us if only symbolically of the total direction. This was so (and may still be so) in societies with a compact community of values and a lively communication nexus (if they exist anywhere today). When a villager salutes the earth before he takes his food, he acknowledges his debt to the earth for his nourishment and promises to make good. When a tribal carver cuts a tree down to work upon he registers, in a ritual his guilt at bringing down this beautiful piece of nature and promises to make amends. You may call these superstitions. But they reveal a larger vision of life. They seem to know, however imperfectly, what they owe to the environment. We urbanites have lost, or are fast losing, this vision, especially one where knowledge seeps into feeling. We certainly carry more information than the villager about the earth and ourselves, but at food time what we are mainly concerned with are calories and prices. Our timber merchants are more educated and circumspect than the tribal carvers but they can wipe out whole forests without blinking an eye. Why is this so? Because we have limited concerns. While eating we are only watching our waistlines and our bank balances, while cutting down trees the timber merchant is thinking only of his immediate profit.

In a world as large and complex as ours of the present day, when people of various ideas and interests are milling together and which is caught in a complicated network of global forces, such overall directions are lost sight of and our concerns get

smaller. We de-link each act and give it a small ethic of its own. It is probably improper to call it an ethic. It is better called terms of reference or functional context. (Even in societies mentioned earlier such de-linking took place when an act or set of acts did not correspond with the overall direction. So the laws of war were different from the laws of peace, and the laws of commerce from those of social sharing.)

If this is true of all areas of life, this is true of design too. In today's world the design problems as they come to you are likely to have, more often than not, limited terms of reference. And the briefs presented to you will vary in quality; some may be basic, but others frivolous. You may also notice many obvious conflicts of interest. A consumer wants the best value he can get for his money; so for him the durability of a thing is a big factor, But for the producer it is not; he thinks that if his goods are too durable, his business will naturally be less. Even briefs for communication, which normally carry implications of clarity, integrity and truth, ask often for the opposite — that is, the cover up, understatement or cover statement. You have only to call to mind advertisements that jazz up the images of the commodities they promote, commercial literature that erects stupendous verbal arcades to project a person or institution or even those governmental reports that stonewall issues with the most exasperating verbiage. But whatever that may be, there is no lack of variety in today's world. The problems are many and they demand quick and smart solutions.

Encircled by these you may in the beginning feel a little disappointed. For the horizons of youth are broad and boundless and you want to think in terms of the ultimate, not these limited pockets, big and small. Which is as it should be. But it is

in the nature of the human predicament that we have to live with and between the little realities of life and boundless dreams. If we surrender exclusively to one or the other we shall become either smug, though polished, jobbers or ineffectual visionaries. But there is something in the air of our time that pushes one to make single choices; which is hard and drives you to anger and despair, makes you behave like a cross between an Old Testament prophet and a Saivite saint from the south (one spouting fire and the other beating his breast). And when you are finally exhausted and get your professional assignment, you plump for the former alternative.

By exhorting you to dream, this is what I choose to warn you against. At the same time as you put your fingers into the reality around, you need also to exercise your minds about problems beyond them, even hypothetical. That is how a conceptual structure or philosophy is born — just imagine those hermits of old, who lived in leaf huts and survived on roots and berries, away from crowded streams of life, relatively undisturbed except by an occasional raid by an asura vandal; what need had they to think of life and death and all those extreme human situations that challenged our understanding? But it is that conceptual structure that grew out of their dialogue with themselves that still survives as the bedrock of Indian philosophy. If you want a philosophy of design you have to undergo the same exercise. And probably no country in the world offers as fertile a field for enquiry as our country does; it is a country in an active vortex of change, economic, ethnic and cultural, and you understand issues and options best in such an atmosphere of change, it is a change you cannot miss.

I might as well conclude here. I hope I have not burdened

you with too big a responsibility. I wish you every success in your lives and that restlessness needed to make this world a little better than it is.





"WITH THE KNOWLEDGE AND SKILL THAT YOU HAVE ACQUIRED WITHIN THE PRECINCTS OF THIS SEAT OF LEARNING AND THE SACRED PLEDGE YOU HAVE JUST TAKEN TO PROVE WORTHY OF IT IN LIFE, BY WORD AND DEED, GO OUT AND ENLIST YOURSELF IN THE GREAT ENDEAVOUR TO BUILD A BETTER SOCIAL ORDER, A WORLD OF SUNSHINE AND PROSPERITY FOR ALL. THE MAJESTY OF THE PEOPLE OF INDIA, HER COMMON HUMANITY IS AS AWE-INSPIRING AS THE TOWERING HIMALAYAS – STRONG AND BEAUTIFUL. AND WHEN YOU REACH OUT TO THOSE MILLIONS, THEN AND THEN ALONE SHALL BEGIN YOUR EDUCATION, AS YOU WILL JOIN THESE IN THEIR SEEKING OUT NEW DESIGNS FOR THEIR LIFE AND LIVING."

— Shri Nikhil Chakravartty

# The National Realities

hen Yash Pal spoke to me, and Vinay Jha invited me to address this Convocation, I must confess I was a little taken aback. Convocations by their very nature are formal affairs, and as such they frighten me. I have in my life attended only one Convocation. That was the one where I got the graduate's degree 54 years ago in Calcutta. As far as I can recall, nobody read out the address at that convocation because the Englishman Governor who was the Chancellor thought it unsafe to read this speech, as the year before his predecessor narrowly escaped having been shot at by a Bengali lady student, who after spending years in prison, came out to be a respected Congress leader widely known for her work for the underdog. And that governor, who had specialised in Black-and-Tan repression, came to be known as a living example of bad Bengali marksmanship.

And yet with all my trepidations, I have responded to Yash Pal and Vinay's summons because, over the years, as I have sometimes visited this campus — rather sneaked into it thanks to Ashoke Chatterjee's hospitality — I have become attached to it. It has been the same sort of sensation as I used to get in my young days visiting Santiniketan — a relief, a retreat from the hothouse excitement of a newsman's career, alternating between the momentous and the ridiculous, between the serious and the sordid.

Here in NID watching earnest faces at work, I become aware of the meaning of Design. In my ignorance the word Design used to conjure up either an intricate pattern on a sari or an architect's concept of a building. Coming here I have acquired, at least in vague outline, that Design has a wider meaning, which encompasses almost every facet of life and living. For me

personally this is important because my profession enjoins upon me to be a ringside observer of a community of people who have virtually abandoned all sense of Design, namely the political elite of today. You may hear a lot about their designs, but no faithful allegiance to the responsibility of following the principles of designing a nation's destiny, the well being of its millions.

Our political elite is supposed to be running a democratic system. I wonder how many of them have paused and sought to understand the design that helped to build this democratic structure. Let me share my thoughts with you, — whatever their worth — on this aspect, the most crucial aspect of our national life.

In our country democracy has come by a route different from the one that History had set out for the Western world. Here democracy came before the Industrial Revolution, and not after it, as it happened in the West. There is a myth fostered mainly by a section of British scholars, and picked up by some of our scholars, that India's urge for nationhood and India's preference for democracy were part of the enlightened benefits that our British rulers had left behind for us. In reality, our national struggle for freedom drew inspiration not from one but from various sources: from the French and American Revolutions, from the Irish struggle for freedom as also from Japan's assertion as a modern power defying European domination of the world. As for democracy, we have to go to the very nature of our struggle for independence. Gandhiji came to India with his unique experiment in civil disobedience in South Africa. In fact, his South Africa Struggle acted like a Pilot Project of what Gandhiji later initiated in this country; perhaps the best

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item that this country has ever imported from abroad by one who by today's terminology may be called a Non-Resident Indian, the most distinguished NRI in History.

The essence of Gandhiji's nonviolent mass movement was to raise the consciousness of the masses, to make them realise that they, the common humanity of this country, were strong enough to get rid of foreign rule. Largely because of historical necessity, he chose the more difficult but enduring technique of rousing the people through a tireless endeavour at mass communication. We achieved our Independence not by engineering a revolt in the armed forces or by a violent upheaval but a sustained and determined mass movement participated in by millions. This experiment, unique in history, demanded that the common people of this country would have to be informed and awakened to the significance of India regaining her independence.

So when Independence actually came, our leaders, the men and women, who had led the freedom struggle under Gandhiji's captaincy, had not the least hesitation in introducing adult suffrage and setting up democratic institutions. Any other form of governance would have been repugnant to the very tradition of our freedom struggle in which millions upon millions were actively set in motion. That explains why in our general elections even today, the unlettered peasants vote in larger numbers than in any other country.

There was another factor that dictated the need for a democratic order in independent India. This is a vast country on the banks of whose rivers many cultures have met. There are diverse levels of development in this rich country — social, economic and cultural. For each one of them to live and let others live

no authoritarian regime will endure. Democracy is the only means by which there can come about a mutually peaceful co-existence among diverse cultures, ethnic entities and economic groupings in this country. Any attempt to put them through any form of authoritarian straitjacket is bound to fail. Let us look at our neighbour, Pakistan. Although conditions are different over there, one fact clearly stands out: its distinct ethnic entities — the Punjabi, the Pathan, the Baluchi and the Sindhi — can never be moulded into a single nationhood by sheer force of arms. Its military rulers in one part tried this, and that part broke away and formed independent Bangladesh. No military regime can make a cohesive national entity out of Pakistan's diverse regional groups. Only democracy can help to make an enduring political edifice in Pakistan.

So when we get worried nowadays at the threat to our national unity and integrity, we have to bear in mind that only a strong vibrant democratic order can ensure stability and integrity for our Republic — nothing else can.

Democracy for this country is thus the offspring of the freedom struggle: at the same time, it provides the only insurance against disintegration of this independent Republic. But what type of democracy? What must be the content of our democracy? To put it briefly, it must provide a fair deal for the vast majority of its citizens. It cannot be a strong democracy if it is divided by wide disparities in social and economic spheres. A democracy that permits, or acquiesces in the prevalence of the caste system with a huge segment of the population kept down as outcaste, can never be a robust democracy. If forty percent of the people of this land live below what is called the poverty line, then this democracy is debilitated to that measure.

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If we remain unconcerned at this ghastly coexistence of highrise affluence with bustee level squalor and deprivation, then there must be something basically wrong with our profession of democracy.

It is true that the levelling of opportunities and facilities cannot be attained in a short span of time. And to be effective, the economy has to produce plenty: otherwise it may be just the sharing of common poverty. At the same time, we cannot in all honesty claim to be democratic with our sensitivity dehumanised as we have reconciled in the last 40 years to live in comfort while the next-door neighbour is afflicted with grim poverty. With the economic growth achieved in these forty years since independence, there has certainly been a rise however inadequate in the living conditions even among the poor; but what has happened is that while the rich have become richer, the poor have not got their due share of the nation's wealth. This is the shortcoming of our democracy.

There are people who love to weave theories out of this sorry state of affairs. There is the theory that as the rich will become richer, the country's economic development will take place, and the benefit of such growth is bound to trickle down to the people at the bottom. The "trickle down" theory is very widespread. Actually it denotes a patent admission that the real responsibility of the State and Society is to look after the interests of the Haves; and the Have-nots will take care of themselves. A slight variant of the same theory is that our planning, our economic structure, should look after the top one hundred million people, the affluent top, so that their interests are promoted and safeguarded. As for the remaining 500 to 600 million they can fend for themselves; in case of any restlessness

on their part, some crumbs can be thrown at them.

There is still another problem that underlines the need for our democratic commitment. Ours is a multi-cultural entity: many streams of civilisation have come and merged in this rich land of ours. Over the centuries in history, these streams mingled and have sustained a continuous civilisational process. In our history, there has been no extermination of one race, or culture by another, as had happened in the case of say Armenians in Turkey. There have certainly been conflicts, ups and downs in the fortunes of different entities, but never the total liquidation of any. In other words, every one of the faiths and cultural traditions has left their imprint on this rock of Indian civilisation.

Our democracy therefore has to be such as would preserve all these diverse strains and look after the interests of all of them, their, culture, their faiths and beliefs. There cannot be the domination of one faith, one cultural stream over the other. In such matters, numbers do not count, what counts is the concern and interest in the promotion of all — a sort of consensus approach, not a majority-minority approach.

Many of our politicians ignore this time tested design; in their madness to rush to collect votes, they do not hesitate to set off communal riots at least most of them fight shy of putting them out. They have long forgotten that every citizen of this Republic has to be his brother's keeper. This beautiful mosaic called India has to be preserved if we claim to be the true inheritors of its rich continuing civilisation.

In this panorama, how do we explain the rise of intense regional loyalties and how could these be reconciled or integrated into the road framework of Indian unity? Regionalism

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by itself need not be frowned upon, because it is a complex phenomenon. With the advance of the democratic functioning in our country, the urge for different linguistic entities to carry on their administration and public activity in their own mother tongue is natural and healthy. In reality, this is an extension of our democracy.

Secondly, as economic development has proceeded, there has come the awareness of the wealth embedded in different regions. Madhya Pradesh, Bihar and Orissa saw the coming up of steel plants: Gujarat saw the phenomenal growth of our petroleum industry; the power generated out of the harnessing of our mighty rivers brought out the importance of other regions. As a consequence, the people of every region conscious of the newly acquired economic wealth, wanted to keep it for themselves. There arose the slogan of "sons of the soil," that the inhabitants of a particular region alone must be employed in the economic projects of that region. But modern industrial plants require engineers and operators from all over the country and their products are meant for the entire nation. So there cannot be a narrow view of regional claims. In a sense, our planning process has generated sufficient consciousness by which this narrow regionalism can be countered. A new awareness has come about: the need for give-and-take among different regions, and thereby the need for a united India has come to be recognised.

But economic aspirations alone do not explain all the manifestations of narrow regionalism. This can be seen from the experience of Punjab, economically one of the highly developed states of India, and yet there has come up a strong urge for separatism. It is largely the failure of our political process and

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the neglect in instilling the consciousness of unity-in-the midst-of diversity that are responsible for most of the clamours for separate existence. Not only Punjab, but in the case of Gorkhaland, the Jharkhand or the separateness in parts of the northeast, the sense of alienation is the measure of our neglect in generating the consciousness of a united India. It is the parochialism of what is called the heartland that is largely responsible for the estrangement of the periphery.

With all the conflicts and turmoil that pervade in our country today, you may ask, what really has gone wrong? Basically. It is the economic aspect of our democratic structure, which has become the main breeding ground of discontent. In a democracy if the vast and overwhelming majority has a sense of deprivation, that it has got a raw deal, then naturally such a democracy will be fragile from the very beginning. Other factors also are very important in undermining our democratic structure: the caste and the communal discord, ethnic tensions, disequilibrium in the promotion of education and culture.

Why has this happened? During the freedom struggle we had the unique privilege of being led by personalities of exceptional greatness. A Gandhi or a Nehru was not an ordinary mortal. But the massive movement they built up had only one sole objective, a one-point programme, so to say: that was to get rid of the British Raj. Although the Congress passed many reso-lutions on many subjects, there was only one single over-riding slogan — the British must quit and the country must be made independent.

When freedom came, our leaders set up a democratic structure and ran the administrative and political machinery with a remarkable degree of maturity. They unified the country despite

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the devastation of the partition and the presence of princely states which were absorbed into the Republican structure.

But on the social and economic spheres, things were left without a firm direction. Why? Because our national movement was a huge concourse of people from different economic interests, diverse social and cultural outlooks. Sometimes these interests and perceptions came into conflict with one another, and it was only with the sheer political and moral authority of the leadership, that these were diffused but never solved. This has been the portrait of what has come to be known as Mixed Economy.

Gandhiji had the foresight of things to come. So, on the very morrow of Independence has advised that the Congress should be dissolved: its objective was to set the country free from foreign rule, and once that objective was realised, it must not continue. And he advised that persons and groups with different economic and social points of view should form their own parties and propagate their views and enlist support from the people at large. This was, he thought, the new battle for economic advance and it should be fought with clearcut objectives.

Other national leaders had a different viewpoint. They felt that this huge national organisation commanding the allegiance and support of vast masses of the people, must now be harnessed to the task of national integration, defence of independence and also to ensure economic independence from powerful outside forces. But in course of years the Congress became only an instrument for fighting and winning elections: some of the leaders from time to time tried to provide a direction in the economic and cultural spheres, but these did not endure because these efforts were merely formal while there continued the

powerful hold of dominant interests, social and economic.

As it happens in political life, the dominant political entity set the tone and the style of functioning for all other smaller and weaker entities to follow. If we observe carefully, we find that the pattern of functioning that the Congress resorted to, became by and large the pattern of functioning of all the other parties.

Obviously, the makeshift arrangement could not go on forever. There was progressive deterioration. No wonder, exactly 30 years after Independence — the span of a generation — in 1977, the Congress lost its uninterrupted monopoly of power, to a conglomeration mainly composed of those who had fallen out of the Congress. Since then, patchwork politics has been going on, and the old Congress, the fighting organ of an entire nation, preferred to revolve round the personality of its leader to an extent that its normal day-to-day functioning has practically ceased.

I would not like to go deeper into all the malaise that afflicts our nation, our society today. I myself am, not pessimistic. We certainly have our own specific problems and I have tried to narrate some of them here. But we have to look at our ailments, our difficulties, in the context of what is happening all over the world.

We are in the midst of an epochal transition in history, From the Industrial Revolution, the world is moving on to the Technological Revolution. And in such periods of transition great convulsions take place, and the powerful rulers of one epoch do not necessarily continue to rule the next. The Roman Empire collapsed, giving place to new forces. Great empires thrived five centuries ago — the Persian, the Mughal and the Spanish Empires for instance. But they were overpowered and

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new powers came with the mastery over new technologies. Czars had the most extensive continental empires, but that collapsed in the middle of the First World War. Britain was the leading power in the 19th and the beginning of the 20th Century, but in the middle of the Second World War, it had to make way for the US giant. But today even that giant is facing the economic challenge of a power which had been humbled and defeated by America's atom bomb only forty years ago. Japan today poses a challenge to the economic colossus of the United States.

And so as new technologies come, new opportunities appear; but one cannot make use of new opportunities unless one has the vision and the perspective of the dynamics of a changing world. Today, the technology of the silicon chip for instance, has opened up the possibility of harnessing solar electricity. And as solar electricity comes, the area of the world endowed most with sunlight is going to come up. The sources of energy have been the sources of power in history. Coal gave the lead to England, Electricity and Petroleum to USA. Which countries will have the abundance of solar electricity? Obviously the countries of the Third World, as most of them cluster along the equator. And among the Third World countries, our country has the equipment, economic infrastructure and human material to lead the way.

So, let us have this vision of the Twenty-first Century, the century of solar electricity, the age of the Third World, when India has to lead. With our heritage of a rich continuous civilisation behind us, and with this vista ahead of us, there is nothing to be pessimistic about. Rather we have new responsibilities to discharge.

My young friends, today you are stepping out of the portals

of this great institution — out into the wide world of this great country of ours. From the rugged mountains of Ladakh to the shores of the vast expanse of the ocean at Kanyakumari: from the mighty Brahmaputra thundering out of the rapids in the furthest east, to the bustling marts of Surat in the west — go out and see this beautiful country of ours, and mingle with its millions, unvanquished by poverty and yet never losing their nobility. The arts and crafts of our great civilisation they have kept up, proudly defying the ravages of time and the venality of the predator. For they shall never say die.

With the knowledge and skill that you have acquired within the precincts of this seat of learning and the sacred pledge you have just taken to prove worthy of it in life, by word and deed, go out and enlist yourself in the great endeavour to build a better social order, a world of sunshine and prosperity for all. The majesty of the people of India, her common humanity is as awe-inspiring as the towering Himalayas — strong and beautiful. And when you reach out to those millions, then and then alone shall begin your education, as you will join these in their seeking out new designs for their life and living.

As you set out on this exciting venture, I wish you fair winds and rich bounty.



"THOUGH DESIGNERS IN THE BROADEST SENSE HAVE ALWAYS
PLAYED AN IMPORTANT ROLE IN THE AFFAIRS OF MAN, THIS ROLE IS
CHANGING. IN A FUNDAMENTAL SENSE EVERYONE IS A DESIGNER.
ECONOMISTS DESIGN POLICIES, LEGISLATURES DESIGN LAWS,
ENGINEERS DESIGN PRODUCTS AND PROCESSES, AND COMPUTER
SCIENTISTS EVEN DESCRIBE THEIR WORK AS DESIGNING COMPUTER
ARCHITECTURE. IN A TRIVIAL WAY, WHEN ONE ARRANGES FURNITURE
AROUND THE HOUSE OF EVEN ONE'S CUPBOARD, ONE DESIGNS
ONE'S ENVIRONMENT IN A MORE SATISFACTORY WAY."

# Design, Designers and Development

indeed an honour for it implies that you are capable of delivering — one never just 'gives' a convocation address one 'delivers' it — a witty, wise and a thought-provoking speech. Thus, when Prof. Yash Pal asked me to deliver this convocation address, it was not possible for me to refuse. In any case he had said that he won't take no for an answer.

I hope, however, to resist the temptation to deliver to you weighty words of wisdom not because of the possibility that you may think that my precious pearls are nothing but ordinary glass beads, but because graduation is such a milestone in a person's life, that one ought not to be too grave. One ought to be joyous and contribute to the feelings of accomplishment and self-worth of the graduates.

You, who have been fortunate to study at NID, the premier design institute in the country, are a special lot. You must feel today more educated than when you entered this institute. And if NID has done its job well, I hope you also feel more ignorant than when you entered. As one knows more, one also knows how much one does not know. As you begin a new phase of life, some of you perhaps ask yourself today, "What is design? What does it mean to be a designer? What is the role of a designer in this country today?"

Like any multidisciplinary activity, design is difficult to define. I am sure you have gone through many inconclusive arguments on what is design. Even then I feel that as a non-specialist outsider if I may raise these issues once again. Something new may be learnt. What does one design for? Does one design to improve aesthetics, to give an image of sophistication, to express one's cultural aspirations, to improve the environment,

to improve function, to cut costs, to do more with less, to improve sales, to increase profits, or just to entertain?

To say that one designs for all of these is not a satisfactory answer. These needs often conflict. Form and function may conflict, cost and convenience may clash and so can efficiency and elegance. Perhaps one can say that one designs for improving the quality of life, however it may be perceived by those who are affected by the design. In a broader context, we may use the economists' notion of social welfare and say that good design should increase social welfare, which, of course, depends on the welfare of various individuals that constitute the society. While this may provide a way to look at the quality of design, it still leaves many real and practical issues unanswered.

Take for example the possible conflict between function and aesthetic. I remember reading an interview of Le Corbusier by a newspaper correspondent. He had designed a residential building in Ahmedabad for a client who wanted him to put a railing around stairs, as she was concerned that without a railing her grandchildren might fall off the stairs. Corbusier would have none of it and he is reported to have said, "Why should I compromise my aesthetic integrity for those unborn brats?"

Perhaps to be as famous and successful as Corbusier and to create innovative designs as he did, one needs the courage of conviction that he shows here. Yet, the dividing line between arrogance and courage of conviction is difficult to define. The demand for a protective railing was based on a legitimate functional need. And any design that neglects it cannot be considered a good design. It may give status to those who live in a house designed by a famous man but if it also creates anxiety, one cannot easily say that the quality of life is improved

by such design.

Designers have to be particularly sensitive to users' needs when they are dealing with social issues and the immediate client is not the ultimate user. The designers here have to respect in many social and economic constraints. Some years ago in the early 70s, I was chairman of an expert committee set up by the Kerala government to recommend a performance approach to cost reduction in building construction. There had been many reports of committees on low-cost housing. Yet, what distinguished our Kerala report, I think, was its appreciation of the social context.

We restricted ourselves to only those techniques, which (a) do not require large additional investments (b) do not require special or rare skills and (c) do not require highly mechanised mass production. Moreover, we selected materials (a) which are locally available or which can be locally made, (b) which can be made by small-scale manufacturing plants spread throughout the State and (c) for which the process of manufacturing is labour intensive, capital saving and fuel saving.

Techniques, which meet these constraints, can be easily adopted by an individual without his having to wait for others to do something for him. Finally, we required that the building should structurally adequate, appropriate for Kerala's climate and respect the priorities of the users. We believed that the poor accord the highest priority to the area of the house.

By using load-bearing brick walls of four and a half inches' thickness, doing away with many in essential finishes, such as plasters, paints and floor titles etc., using brick jaalies instead of windows and an innovative roof design, one could achieve a significant reduction in cost. By recognising that the walls of a

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room act as a box, even thin walls can be seen to be structurally adequate. Also, in the hot and humid climate of Kerala, thin walls with Jaalies retain less heat and cool off faster and constitute a more comfortable house. But when this design was presented to the engineers of the state's Public Works Department (PWD), their response was "Anyone can cut down costs by having a half-finished house. This is langoti architecture," We felt that in Kerala's climate a langoti is more appropriate than a three-piece suit. What is worth noting here is that the engineers who mostly belonged to the upper and middle classes did not fully appreciate what we thought the poor required most — more living area and less finishes. We were also not sure that we were right and so we had suggested building some demonstration houses to ascertain people's preferences through a market test. But even that was resisted. The designer here I think plays an important role in determining how the conflict between cost, function and aesthetics gets resolved. And clearly the designer's choice matters a lot to the poor who have to live in these houses.

It is not just that the upper classes fail to appreciate the needs of the poor; the urban designer can also fail to perceive the need of the rural user. The functional requirements of the user depend on the environment in which he lives. The difficulty of appreciating users' needs under different living conditions was brought home to me in a striking way by a friend. I was admiring the new upholstery in a friend's house. It was of very elegant cloth of unusual design. At that time an agronomist friend who lives in a village came in and observed, "The new upholstery is very elegant but in the village we prefer Rexene. That is the modern fashionable and practical thing to

have. When farmers come to visit me, they sit cross-legged on the sofa. I don't have to worry about the sofa getting dirty. If it gets dirty it can easily be washed off. It is better to have Rexene than to be impolite to your guests and to tell them not to sit cross-legged on the sofa. This sophisticated material is all right for you urban folks but not for us." This friend also had a very interesting definition of sophisticated design, something that does not look like much, but those who know, know that it costs like hell.

In the past, man's activities changed his physical environment only slowly, almost imperceptibly. Only the architect and the town planners made some visual impact. It was thus natural that the early designers' inspirations came from architects and planners, with emphasis on aesthetics, form and visual appeal. Today, the urban landscape is dominated by manmade products. These industrial products, the new flora and fauna of the urban habitat, are often engineered to perform a particular task efficiently in some sense, but not designed to do it, in what the computer programmers call, a 'user-friendly' way.

The difference between a well-engineered and well-designed products became clear to me in the early sixties. In the very cold winter of Boston, I would see a friend struggle to start his brand new Mercedes Benz. It failed to start on really cold days when he wanted to use his car most. He would watch with envy his neighbour getting into his old American Ford and drive away with no problem at all. The Mercedes is a remarkably well-engineered car. It had all kinds of technical innovations that cars don't have, even today. It had excellent road stability and a very smooth ride. But in those days, one had to spend a lot of effort in regular preventive maintenance to get the best performance

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from this car. American cars on the other hand were not so well engineered. They were also sloppily crafted compared to the Mercedes. But they could take all the abuse that an average car user gave and they still worked. One can say, as reliable transportation, a Ford was a better-designed car, though the Mercedes was a better crafted and a better engineered one. Of course, things have changed now and both American and German cars today are quite different from what they used to be.

Though designers in the broadest sense have always played an important role in the affairs of man, this role is changing. In a fundamental sense everyone is a designer. Economists design policies, legislatures design laws, engineers design products and processes, and computer scientists even describe their work as designing computer architecture. In a trivial way, when one arranges furniture around the house of even one's cupboard, one designs one's environment in a more satisfactory way. In a more profound sense some great religious leaders such as the authors of the Vedas, Ramayana and Mahabharata and teachers such as Gautam Buddha, Mahavir, Christ and one might add, Marx and Gandhiji, tried to structure or restructure moral and social design for living. These social designers took the physical environment as given and tried to design ways of living that would, by restructuring society and modifying human behaviour, make people, live a happier life in their environment. But perhaps we should restrict ourselves to the role of designers as trained by NID. What is their role in India today?

Designers have an obvious role to play in the modern industrial world: to make the landscape of the industrial age more humane, the products visually attractive and easy to use and maintain, to make man comfortable in 'modern times'. That is

primarily the role that industrial designers play in developed countries. It is also a useful role for designers to play in our country.

Better design can add a lot of value to the product. The usefulness to the country of making products of Indian industry more desirable to the consumers and more competitive internationally should not be underestimated. Indian Industries have to be competitive and have to make products of quality if they are to grow. And they have to grow if the country's economy has to develop, and if poverty and hunger are to be reduced. Thus as designers you should not consider it unpatriotic or immoral to work for well-paying private industry.

I do hope, however, that in your work as industrial designers you would create designs that respect the production tools and technology available to Indian workers. The industrial style of straight edges, perfect geometrical shapes and true plane surfaces originating from the highly mechanised manufacturing industries of labour-scarce industrial economies cannot be easily imitated in India. Why we try to imitate those designs, no matter how hard our craftsmen try, they cannot attain the same quality without similar machines. The resulting products look poorly made. It is however not necessary to imitate this style. With an appropriate design, our labour intensive production methods could be turned into an advantage. We should evolve a style of design and a new aesthetics and which is appropriate to our manufacturing facilities. Let form follow facility. It would in fact be consistent with the true spirit of the Western industrial aesthetic revolution. When the structure became dominant in utilitarian engineering design, the Bauhaus revolution learned to love it and make form follow function with style and created

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designs, which are aesthetically appealing as well as, efficient, economic and safe.

In our country designers can play other useful roles as well. In the process of economic development, and industrialisation, new materials and processes tend to drive out many traditional products. The artisans and the craftsmen who depend on it lose their markets. The classical 'lota', in spite of all its elegance and functional relevance to its times, has been virtually replaced by the plastic tumbler. The Eames' report talked of creating 'lotas of our time'. I want to point out however the need to design and create new products that the craftsmen can now produce and sell successfully to earn a decent living. It is not a question of redesigning the lota to fight back the assault of the plastic tumbler. That way you may be able perhaps to create a small market for designer lotas. It is also not a question of persuading people to go back to using disposable earthen kuladies or bateras for their tea, as George Fernandes tried unsuccessfully to do as Railways Minister. One has to accept the economic reality and creatively design products that are designed by people who have the money to buy them and can be manufactured by the artisans and craftsmen who have lost the markets for their traditional products.

This is an extremely difficult task, which will challenge your creativity, your understanding of traditional production technology and your appreciation of the realities of the market place. Furthermore the people who are directly involved, the artisans and the craftsmen, are too poor to employ a designer directly. The employer may be a development agency or some other public body unable to interact with the designer in a way that a user or a profit-seeking industrialist would. Yet any

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designing activity that finds new markets for the products of our traditional artisans and craftsmen is indeed socially very relevant in our country today.

Much of what I have said so far refers to the design of products and processes. But training in design of communications is an important activity of the NID. One communicates to entertain, to inform, to educate, and to persuade. The first goal of communication is to be noticed, and then to be read, seen or heard. Only then can understanding, persuasion and action become possible. When the goal is merely to entertain, the message becomes somewhat irrelevant. But for other purposes the content of the communication is of paramount importance.

The skills that you have hopefully acquired here to present information in an attractive way that catches attention can be used both for primarily commercial as well as social purposes. Well-designed magazines and movies that entertain and attractive advertisements that catch one's attention also have some social value. They stimulate economic activities and employment. And we all enjoy good ads. Reading Amul's hoardings one feels better even when one can't have butter. So, you need not feel apologetic about working for the commercial sector. After all you have to make a living. But it would indeed be a shame if all of you were to use all your skills solely for the purpose of communicating a commercial message. The skills that you have in making people believe that they will be as youthful, beautiful and attractive as the model on the screen if only they were to use a particular soap or cream, that the magical beauty of the model is really in the sari that she wears and so easily accessible to the viewer, that the sex appeal of the cricketer is really due to the cosmetics that he uses, should be used for socially more

relevant educational purposes.

These skills of persuasion can be valuable in promoting family planning, in improving public health and hygiene, in encouraging education of women, in raising the consciousness against dowry, in stimulating social reforms and in many other social causes. And we do see more of such well-designed commercials these days relating to these issues indicating that some designers are indeed contributing to social causes. But I would like to bring to your notice an area in which graphic design and communication skills can contribute much more. These are science education (and adult education). The science texts in India, particularly in the Indian language, are very poor not only in the content, but also in explanation and presentation. Not all professional scientists can communicate effectively. Moreover they do not respect the skills of other seemingly softer disciplines like design. They do not seek the help of designers, which they should, to communicate more effectively. There is I think a potentially very fruitful collaboration possible here to promote the scientific temper in this country, which we so often profess to want to promote.

Perhaps an even more important opportunity for designers exists in designing material for adult education, material that is entertaining and informative for adults without being condescending. I am not aware of what efforts are being made in this area but have not seen any significant output. Yet, I hope that NID and UGC with a chairman who is a scientist himself and who has been deeply interested in education will create opportunities for some of you young designers and communication experts to work together with others to create such educational material.

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In the end, I want to congratulate the designers who are graduating today. I wish you all a professionally exciting, personally challenging, socially meaningful and emotionally fulfilling life.

I also wish that you in your work would show the necessary empathy to appreciate users' needs — the inspiration to invent creative solutions, the cleverness to make them cost-effective and the self-assurance to resist self-indulgence.





"AS HAS BEEN STATED TIME AND AGAIN IN YOUR DOCUMENTS,
DESIGN IS BOTH OLD AND A VERY NEW DISCIPLINE. YOU HAVE
ACHIEVED REMARKABLE SUCCESS THROUGH DEDICATION AND
SENSITIVITY AND HAVE BROUGHT ABOUT A NEW CONSCIOUSNESS IN
REGARD TO THE NEED FOR CREATING A SENSE OF 'ORDER' TO THIS
OUR NEW DISPARATE ENVIRONMENT; BEGINNING WITH THE REVIVING
AND SOPHISTICATION OF THE FORM OF OBJECTS, THINGS.
UNDERSTANDABLY, THE VISION OF THE DISCIPLINE HAS BEEN
ENLARGED AND WIDENED TO INCLUDE NOT JUST PRODUCTS BUT
PLACE, SPACE, CONTEXT AND MOST OF ALL PROCESS."

— Dr. Kapila Vatsyayan

## Culture and Design

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he honour you have bestowed upon me is undeserved and I feel inadequate to address so distinguished a gathering comprising men of distinction from so many disciplines, all converging, intermeshing in the single total discipline of 'Design'.

What can I say to you at this moment, when you have mastered the 'skills' of 'form' on industrial design or visual communication and when you have explored in some depth and breadth of perception the users' 'needs', evolved new modes of 'production' and 'communication'?

Although unnecessary and repetitive, perhaps a brief historical overview of the changed milieu and context in which the need for a new discipline of Design emerged, as distinct from 'art' 'craft' 'lifestyle' and life process, would be pertinent — specially of the century or two before Charles Eames emerged.

I shall not burden you with dates and figures, much of which you know, but it is pertinent to recall that the tacit philosophic premise of the emergence of such an all-encompassing concept, lay in the breakdown of a coherent cultural lifestyle. As we know, life function and art and craft were not dissociated in pre-industrialised societies. This is still true of traditional societies or those we choose to call backward in socioeconomic terms. In each of these culturally cohesive societies, 'creativity' was recognised as a quality as essential and ordinary as the act of breathing. Art creations of things and products were intrinsic to the act of living. From birth to death, life was punctuated with key moments of time when objects and products created were given meaning and significance as 'signifiers' and symbols beyond their form. These ranged from the objects,

processes and expressions in all 'media', from song to movement, from floral design to floor and mud paintings, to mobiles of toys, to the making of rattles and 'cots'. All sense perceptions came into play and a totality was created by cultivating a distinctive sense of sight, hearing, scent, touch and taste. Each sense perception was sought to be refined in singleness and confluence in a manner that the sense perceptions became the vehicle of 'experience'. In turn, they were tools of manifestation, containers of the vitality of the 'creations' and therein lay embedded their power of communication between creator and audience. Their manifestation in diverse media was conditioned, in part or whole, by a cultural context of the man and nature inter-relationship, the mother-child, individual society interwebbing and an avowed faith in a worldview where a system of correspondence was recognised between the micro and macro. In artistic terms we called it the language of myth and symbol. At each moment, 'form' was both 'functional' and 'symbolic'. It was in time, place, context, historical, 'social' 'economic' and religious concurrently. Consequently, significant 'form' was a micro-model of a macro-universe; Object was also signifier of process and experience. 'Function', 'Utility', and 'Beauty' were not disconnected. No quantitative hierarchical categorisation of Fine Art and 'Craft' was necessary or viable.

This is the history of culture throughout the world, not restricted to the developed or underdeveloped world. The lifedeath-life cycle was complimented by the awareness of another cycle of the movement of the earth, the solar and lunar astronomical orbit. Life-function, and daily, monthly, and annual time were not a mere passage from one second to another in a

sequential linear order, but were instead only a reminder of the incessant movement of the planets in cyclicity. Man's needs from food gathering to sowing, harvesting, making of utensils, clothes, modes of transportation, harnessing of natural resources were all organised on a tacit acceptance and sometimes clearly articulated awareness of an ecosystem of the micro-man and macro universe. Naturally everything fell into place because there was a multilayered concurrency of 'form' meaning and value of the physical and metaphysical, of space circumscribed or free at micro-macro dimensions. While the levels and layers could be differentiated, the experience was of the 'whole', the total, in its multilayered interwebbing and interrelatedness. Logically no absolute categorisation could be made between the secular and sacred, the terrestrial and celestial, or time past, present and future. Transmutation/transubstantiation was the 'norm' and not the exception.

Beginning with the European Renaissance, itself the product of many influences from West Asia and East Asia and developments in the fundamental sciences, the first disjunction took place, because no longer was 'man-in-nature' one amongst all living beings interrelated to inorganic and organic matter. He was the centre of the universe the conqueror of nature. Without recalling all that happened in the history of mankind during this period. It is important to note that two important developments took place which affected the 'arts' and the notion of 'creativity' and function. Individuation, or the individual as 'creator' apart and distinct from others not 'creative', was recognised. The communication between the earth and the sky, the 'waters' of eternity and the fire energy within the waters, was disenfranchised. It was not primary or secondary forms in

conjunction; each element began to be isolated. Disjunction and aggregation and a linear order of cause and effect came into being. Material Earth not planet earth was the beginning of physical and psychical bipolarities.

The Industrial Revolution, although coming three centuries later, was not unlinked with the beginnings made during the European Renaissance. Man was no longer in Nature. He perceived and objectified 'nature'. Earth was no longer giver and sustainer, but a resource to be exploited; water no longer the symbol of the relationship of the ocean and the sky. "Disjunction' and fragmentation had begun. The extension of man's limb was the 'machine' and the machine in turn brought about the irrevocable disjunction between function and art, lifefunction and beauty and the great divide between 'producers' and 'consumers'. The human condition was not an isolated phenomenon in what we call industrialised societies, but reflected a much deeper figure in the mind of Man. The moment of dissociating life function and art/craft was the moment of also accepting the dissociation of Senses, Body, Mind, Intellect and Spirit from one another. Sense perceptions, in one stroke, and all that they stood for as the instrumentality of refinement of the gross to the subtle, became a matter of 'gratification' of titillation, of profanity. Senses and body stood disjointed from the life of the intellect, mind and consciousness.

Both at the individual level, as also the collective level, isolated islands or particles in competition rather than complimentary, were recognised. The moment of disregard or non-acceptance of the mutual interdependability of the elements of man and nature, of individual and society, became the moment

of making a multilayered system into a 'unidimensional' phenomenon in defined time. 'Art' was 'product' dissociated from life-function. It was decontextualised. Naturally, a culture of wastage replaced the culture of eco-recycling. Individual creations dissociated from life-perception became art, collective or community creations in a coherent social group Craft. The first aspired to the universal by transcending context, the latter became an object of decoration when torn out of its context of life function, life symbolism. The lota, your 'symbol' was reduced from the great purnaghata representing void and fullness to a pitcher of pure utility. The background of the breakdown of a holistic multilayered multidisciplinary system into fragmented moments of time and units of 'space' could not but result in products being totally 'decontextualised at the mundane and sacred levels.

The debate in the early part of the twentieth century spear-headed by Coomarasway and Eric Gill etc., was the first outcry against the loss of the whole and the holy tradition of working, and the lamentable disjunction between function and art. Article after article, essay after essay, was an outburst against the gradual but sweeping impact of the movement of fragmentation. Perhaps the following quotes will recall the anguish of these prophetic voices.

With the division of 'art' from 'work' and 'beauty' from 'use' in the modern world, art comes out of the artist and gets attached, so to say, to the work of art itself. The creator of 'art' now called an 'artist' personifies art and is given the sole prerogative of its production. Beauty too comes out of things made, to be an aesthetic sensation desired for its own sake. No longer the property of a thing that shows forth the fullness of

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integrity, harmony and intelligible clarity due to its being; no longer identified with goodness and truth, beauty is now associated with a select category of things made. As an aid to emotional stimulus, beauty is freed from the process of rational manufacture so that art has become 'pure' or 'fine' and as such is treated idealistically. The workman is no longer expected to be in possession of his art: 'art' and 'work' are distinct, even opposed, orders of making. Moreover, 'art' becomes of snob value and the word 'art' actually comes to denote the objects that comprise this artificially isolated category of things whose value is maintained in the interests of social prestige. Indeed, the modern world speaks of 'art' instead of 'work of art' because this artificial isolation makes it necessary to distinguish 'art' from 'non-art' in the category of things made.

Blake had anticipated Eric Gill by a century, in a memorable poem, He wrote"

"....all the arts of Life they chang'd into the Arts of Death in Albion.

The hour-glass contemn'd because its simple workmanship

Was like the workmanship of the plowman, and the water wheel

That raises water into cisterns, broken & burn'd with fire

Because its workmanship was like the workmanship of the shepherd;

And in their stead, intricate wheels invented, wheel without wheel.

To perplex youth in their outgoing and to bind to labour in Albion

Of day and night the myriads of eternity; that they may grind

And polish brass & iron hour after hour, laborious task,

Kept ignorant of its use: that they might spend the days of wisdom.

In sorrowful drudgery to obtain a scanty pittance of bread,

In ignorance to view a small portion & think that All,

And call it Demonstration, blind to all the simple rules of life."

The questions asked were about man and nature, in the

### worlds of Eric Gill:

There is a thing called Man and there is a thing called Nature — nature environs man.

Is man one with his environment?

Is he precisely one with it?

That is the atheist affirmation

I have assumed that we deny it

It is in accord with all our experience to deny it.

Walk about in a place removed from civilisation — some bare moorland, or polar ice cap.

The common verdict of man is that, in spite of his material harmony with his surroundings, his sharing in the life of brides and grasses, his dependence on air and warmth, he also stands outside, above beyond, independent and aloof.

This proves nothing — but we are not here concerned with proofs but with verdicts, with affirmation.

We affirm our nature, not by the faculty instruments of induction and ratiocination, but by the convictions of experience.

You know it is so

Appropriately, the definition of art was questioned:

Skill in making the thing called art, degenerates into mere dexterity, i.e. skill in doing, when the workman, for whatever reason... ceases to be concerned for the thing made or, having become a mere tool, a 'hand' in the employ of another, has no longer any responsibility for the thing made and has therefore lost the knowledge of what it is that he is making ... In many factories the 'hands' cannot even know what that they are supposed to be making. All their acts are deeds. All their acts are prudential acts. They polish this or twist the other simply because they are told to do so. They obey because their wage

depends on it and they depend on their wage. Their factory hand can only know what he is doing. What is being made is no concern of his.

... Art is skill in making; but the thing to be made must first of all be known in the mind. If it be not known in the mind it is obvious that no degree of surface finish or juggling with tools will bring it into existence. The trouble in those times and places where technical dexterity takes the place of skill in making is not at all in the fact of technical dexterity, for dexterity is in itself good. The trouble is simply the degradation of the mind. In such times and places the artist, the responsible workman, is without clear ideas and without desire. He does not know what he is making; he does not see it clearly in his mind or he does not desire above all things to make it ...

Art is skill in making; the good work is the skillful work, the work in which the appropriate means have been employed to effect the desired end. If inappropriate means have been employed, the end will not, cannot be achieved. Everything depends upon the nature of the end desired and ends are many and various. It is obvious that the workman must know what he wants to make before he beings the work, it is equally obvious that he must be able to make it or the thing will not be made. Knowing what is to be made is one thing, and knowledge is a thing which may be acquired by anyone; it is connatural to man to know what he desires and all men in consequence are potentially artists; but the word art means skill in making and the name of artist is reserved to him who has the skill to make things and does actually make them.

A requisitioning of the distinction between art and fine art was logical:

The distinction between art and 'fine art' is, in every sense but one, a superstition — many superstitions are widespread so the mere popularity of the distinction need not concern us ...

The idea that the distinction between art and fine art is that art is skill applied to the making of useful things and fine art is skill applied to the making of things of beauty, is clearly unreasonable — because there is no reason why useful things should not be beautiful, and there is no reason to suppose that beautiful things have no use. Are tables and chairs and houses and pottery necessarily ugly? Are portraits and statues and church paintings and wall decorations necessarily useless?

And the idea that the beauty of useful things is accidental whereas, in the fine arts, it is the usefulness that is accidental, is equally unreasonable, for you cannot have beauty by itself, any more than you can have art or culture by themselves.

But there is one sense in which the distinction between art and fine art is a possible one, and that is when we distinguish between the necessary arts, the arts necessary to the business of living, and the arts of recreation, the arts whose purpose is mental and physical recuperation — so that we return again to the arts of living, revived and refreshed.

But even though the distinction between the arts of living and those of recreation is a valid one; and apart from the fact that such a distinction only makes the fine arts more useful than ever (for what is more useful and good than something which enable us to return to work refreshed?), even so, it is obvious that the distinction is one of category; a scientific division rather than one of nature.

Hardly had we come to terms to a recognition of what industrialisation and mechanistic science had brought in its

wake, when the two World Wars, and more developments in science and technology threw us into another vortex of being a global village threatened by sheer physical proximity with the dangers of a total loss of cultural identity. The slow pace of age old cultural influences, which brought about change gradually and imperceptibly, were overtaken by an avalanche of international movements/products/manifestations traveling at jet speed, decontextualised. Isolated phenomena pieces of mirror, flew from one part of the world, West to East, East to West. 'Form', shorn of its value-loaded context was exported as products, be it 'Yoga' in the West or 'cowboys' hamburgers and all else in the East. Immediate consumption and 'form' without feeling and 'meaning' became watchwords.

Design, the new word, was one answer amongst others to renew the perception and creation of 'form' in a new context of I may even say no context. We had accepted that symbol and form had been disjointed and a disjunction had taken place, and producers and consumers were absolute categories and the world of form 'Rupa', was of the senses, of the Body and Intellect, but perhaps not of Mind, Consciousness, Spirit.

The fruits of this tacit recognition of decontextualisation and of rapid and swift influences were many and have been many, none to be negated. A fragmented decontextualised society, no longer connected at a psychical plane to a transcendental intangible but real centre and 'axis', was still in need of significant 'form' functional form and the tools of sense perception and manual skills. A whole new species of manmade technologies came into being. It was not only machines as understood immediately after industrialisation. But it was much more: an explosion of new technologies. Each part of an assembly of

products and expressions demanded different levels of skill and technique. The new technologies and the new environment call for a new insight; if a human being, Man, is still to be the centre in control and not be devoured by the creations of his own intellect, namely the machine and the technologies.

Logically, a new discipline comprising other disciplines and, if I may use the term, an interdisciplinary discipline came into being today well recognised as the autonomous discipline of Design.

As has been stated time and again in your documents, Design is both old and a very new discipline. You have achieved remarkable success through dedication and sensitivity and have brought about a new consciousness in regard to the need for creating a sense of 'order' to this our new disparate environment; beginning with the reviving and sophistication of the form of objects, things. Understandably, the vision of the discipline has been enlarged and widened to include not just products but place, space, context and most of all process.

Recognition of the interrelatedness of the parts and the whole is obvious in the adventure of redesigning living space, habitat and the rejuvenation of the traditional centres of pilgrimage and cultural importance. The various projects undertaken, specially of Sravasti, Braj, etc. clearly articulate the recognition of interrelation and interwebbing. In short, from disjunction you have moved to junction and conjunction. For this the institution, its founders and those who have given it vision and direction, skill and insight must be congratulated. Fundamentally, it is the recognition and self-awareness that a viable design of life in all its dimensions is of pivotal importance. Through a variety of paths and a plurality of approaches,

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through the disjunctions created by our historical conditioning, we are at the threshold of a crucial junction. Whether it is through developments in the post-industrial society at the level of social, economic, political dynamics or at the level of the pursuit of intellectual disciplines or most of all at the level of the new insights gained in Astrophysics and Mathematics, we have come full circle, to realise that once more as in the beginning of organic life on earth, we must first and foremost subscribe, be aware and conscious of this our earth as the literal and metaphorical ground on which we stand. So far as it sustained and nurtured us, we exploited it; devastated it, decorated it, and polluted it. This was the disjunction we caused to the ecosystem within man and the ecosystem in which man was related to the earth and elements. Today the consciousness of man, ancient, perennial, has to be and is being regenerated, renewed. Modern science has brought us to the same recognition of the intrinsic interrelatedness and the interwebbing of the parts and the whole and the phenomenon of a continuous transmutation of matter and energy, and the transferability of time and space and the multilayered and polyvalence of meeting and value to that which we label 'form'.

Where does this take us in the context of your concerns and the life adventure which lies before your? The vistas of your exploration for the future will be, as the Ahmedabad Declaration said, the total design of living not restricted to any particular level of society, tribal, rural, urban or only for function and utility, but will be humanity at large, man and his life of 'introspection', interiority as also outward action, arriving at a new balance as a challenge of the future. This balance has to come from within by not negating the modern human condi-

tion not reviving as 'design' a piece of antiquity but will be and can only be a positive and meaningful symbiosis of the extraordinary powers that Science and Technology has brought us and the equal, if not more potent power of the human resources with indigenous skills, materials and traditions which lie before us in this rich and diverse land of ours. The search will be a deeper search for evolving a viable design of life not fragmented into hierarchies: instead emphasising interrelatedness and interconnectedness through a complex network. No longer would evolution of form be restricted to either function, utility or beauty, but 'form' will be once again the embodiment of meaning and value within a new context. The 'form' so created will have its intrinsic value as creativity in context, but will also have the capacity and potentiality for communication beyond context. This will be its last test.

The tenth Annual Convocation of this Institute held on April 18, 1988 had begun with an invocation from the Taittiriyopanishad. The excerpt chosen brings back our attention to the need for conjunction, links and interlocking. We have travelled the path of Science and Technology to arrive at an awareness of their interrelatedness. The Nobel laureate D. Bohm had said: "One is led to a new notion of unbroken wholeness which denies the classical idea of analysability of the world into separately and independently existing parts. We have reversed the usual classical notion that the independent "elementary parts" of the world are the fundamental reality, and that the various systems are merely particular contingent forms and arrangements of these parts. Rather, we say that inseparable quantum interconnectedness of the whole universe is the fundamental reality, and that relatively independently

behaving parts are merely particular and contingent forms within this whole." The Indian seers had articulated these very insights from the wellsprings of institution and experience. The 'conjunction' and the 'links', which the Taittiriyopanishad invokes, is the interlocking dynamic system of the universe. The context of the verse is important. The universe in the Taittiriyopanishad is conceived as the five-fold and the fivelayered system in which the individual is placed. Taittiriya, like the other Upanishads, had drawn attention to the 'five-fold' as a whole world. It is within this context that the significance of the interlocking has to be understood. Samhita, Sandhi, Rupa and Akasa are the crucial works. They unlock for us the codes of the most complex system of concepts evolved centuries ago and which have validity here and now and for the future of mankind. Each of these relates process. Manifestation and micro and macro. Samhita and Sandhi are the confluence, confluence of elements of space and of time. At this moment may this the notion of Samhita and Sandhi of the earth and the sky, of fire and water and of the passing of the knowledge, vidya, from the teacher to the pupil be yours. Concerned with 'Rupa', form, may the recognition that all form emerges from nondifferentiation, from Arupa to Rupa to Pratirupa only to lead to the experience of the beyond the 'Pararupa', be yours. May this be your journey and finally to 'Space' i.e. Akasa. Akasa the word with the five-fold meaning and the five-levels perception of the inner and the outer, the infinitesimally small and the infinitely expanded. May its experience be yours. The Chhandogya Upanishad had told us "As far, indeed, as the vast space outside, extends the space within the heart. Within it, indeed are contained both heaven and earth, fire and wind, sun and moon,

lightning and the stars, both what one possesses here and what one does not possess, all is contained in SPACE."

Does this sound to you like a lot of ponderous pious Asirvachan at a time when life lies fractured and fragmented? Perhaps, yes: not. This is the significant moment the threshold of human knowledge and experience in which we are all participants. Fragmentation of the intellect, stratification, arbitrary classification have brought us to a point where we all need a discriminating eye and an internal perception that art and design are not a product but a process within man. It was Coomarasway who said that: "Art is not a special category of manifestation. Each man or person is a distinctive artist." I can only hope that your adventures of the future will be the instrumentality of creating, recreating a new order, order I mean in the sense of the Sanskrit word 'Rrta'. A new order will no doubt take different forms in different contexts, but its vision will be unitary, unified. Unity of vision and plurality of forms would be the conjunction. I hope also that your endeavours will help ensure that we bring back the Sandhi between life and art, between the meaning of form and those values, which will give a new refinement to the design and pattern of our living. In the beginning, life was punctured from birth to death as a series of design festivals. Each of these is still observed, but not without pollution and dilution. We are keenly made aware of this at the normal Samskar ceremonies of Indian life. Perhaps new design is necessary for the Samskar as it is also necessary to bring back and rejuvenate the highly refined structure of the design of congregational festivals interspersed throughout our land. Once we enter these areas of life, i.e. life cycle and moments which consecrate time and place, then may be it will be the beginning

of a new journey of redesigning, from a fragmented fractured human condition to a renewed organic whole.





"WHAT I AM SUGGESTING IS THAT A KIND OF ARTISTIC
UNDERSTANDING OF REALITY, NOT JUST SCIENTIFIC UNDERSTANDING
OF REALITY, IS SOMETHING WHICH MIGHT ENABLE US, WHICH MIGHT
HELP THOSE PEOPLE WHO TRY TO SAY, PLEASE GO BEHIND THE
PACKAGES, GO INSIDE. GO BEHIND THE BRAND NAMES. LOOK AT
THE WISDOM OF THE PAST, OF A WHOLE LOT OF PEOPLE WHO FOR
THOUSANDS OF YEARS HAVE SAID THINGS. YOU FIND THE ESSENCE
CONTAINED IN ALL THIS IS COMPLETELY CONSISTENT WITH, AND
ACTUALLY GENERALISES WHAT I AM TALKING ABOUT. YOU CAN FIND
BEAUTIFUL WORDS TO DESCRIBE THIS EXPERIENCE WHICH ONE
HAS. SO IN THE PROCESS OF TRYING TO UNDERSTAND, COMING
FROM SCIENCE AND ASTRONOMY AND PARTICLE PHYSICS AND SO
ON, ONE CAN IF ONE WANTS TO, ACQUIRE A KIND OF RELATIONSHIP
WITH THE WHOLE, WHICH IS FAR DEEPER THAN WE NORMALLY
IMAGINE IT TO BE."

— Prof. Yash Pal

## Wanted: A Collective National Effort

an honoured speaker to come and talk here, the roles have been reversed. I am grateful for this opportunity of saying an appropriate farewell from Chairmanship of this Institute I want to confess to something. Every time I have come to the Institute, shaken hands with students, hugged the members of the faculty and some students and walked around, I have felt a little bit like a peasant. There is so much thought given to this environment and so much oozes out of this environment and the people who inhabit these surroundings, that you do feel that you have missed out on something. I felt that it would have been wonderful to be a student here. I am told I will continue to be associated with the Governing Council and probably shall graduate to a situation where I won't feel like a peasant.

Vikas Satwalekar asked me to talk about 'seeing' and 'relating'. Kamla Chaudhry said that I should talk about passion. Somehow these days whatever I talk about it comes about to be the same talk. It is largely because of a slanted way of seeing and some sort of passion which still invades me even though I am a retired person now. I think it has been very difficult for me to be able to communicate what drives me and what has given me so much joy in life. I suppose all of us, though looking alike and going through the same education, have an internal universe, which is not the same for everyone. And that is marvellous and that is how it ought to be. For example, when somebody gets very excited, about his or her separate identity because of something which happened four or five hundred years ago or for that matter 2000 or 3000 years ago, I am not that moved because it is possible to extend your vision back not only a few hundred years not only a few thousand years, but millions and billions of years.

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And to begin to see your connectivity with each other and with the totality the trees and the birds and the sky and the stars and with everything else. Somehow while doing astronomy and astrophysics, one is supposed to be very logical; one is supposed to be very scientific. But I have not been very scientific and I find a tremendous delight in these intellectual pursuits, which stays with me as part of my personality. And as I have said earlier, I find it very difficult to communicate this. So in terms of ways and seeing and relating, I urge you that let us relate in many dimensions. Let us relate to the whole and totality, not only in terms of how things looked but also how things work and how they are — the beauty and delight of this creation of which we have had the privilege to be a part. It is an unending beauty, an unending source of sheer joy and pleasure, and everyday you discover a new angle, a new connection, a new thing to celebrate.

I see friends here who work in the area of biology. I still can't get over the fact that somehow nature happened to find a language and some words and wit to write things which led to the happening of us and happening of trees and fish and grass and everything else. And it is a single language with just four alphabets. The connectivity of us all, everything living together and the tremendous wonder of life happening on this planet, is something, which never, never stops exciting me.

One can have a continued love affair with this planet of ours. With things we call living and things we call nonliving and with the whole universe itself. Now you can do this intellectually but I say that one ought to do it emotionally also. There is so much beauty in this, so much spirituality in this, and so much sustenance. Such answers to very deep questions, which we keep on asking about who we are and where we came from, is there a

connection of us and the rest, what is the meaning of it. After many of the quarrels and fights, which we had with each other, are because somebody says this different from somebody else. And he thinks his religious texts say he is different, mine say it different, he is my enemy. He is not mine. So what I am suggesting is that a kind of artistic understanding of reality, not just scientific understanding of reality, is something which might enable us, which might help those people who try to say, please go behind the packages, go inside. Go behind the brand names. Look inside. Look at the wisdom of the past, of a whole lot of people who for thousands of years have said things. You find the essence contained in all this is completely consistent with, and actually generalises what I am talking about. You can find beautiful words to describe this experience which one has. So in the process of trying to understand, coming from science and astronomy and particle physics and so on, one can if one wants to acquire a kind of relationship with the whole, which is far deeper, than we normally imagine it to be. So in a sense sometimes I feel that, though history is beautiful, though humans can't live without mythologies, (we must have mythologies) this period of human progression towards "humanhood"—that it seems to have some kind of a tyrannical hold on us — tyrannical in the sense that we have identified a set of people to be like us and others not like us, and that we end up indulging in things which happen even in this beautiful city of Ahmedabad. Things which are absolutely bestial. These are things with which our country is so much concerned and in which the whole of the world is at the moment steeped. We had the war in the Middle East. Somebody did a terrible thing, and annexed a country. Others were annoyed because of various reasons and said, "It is terrible to annex a country, and let us get this fellow out." Sixty to eighty thousand sorties of bombing were carried out because somebody committed this crime. And he had to be got out. Cities were destroyed, children mutilated, whole countries devastated. I ask myself this question, "Supposing the aggressor had been France or Britain, or the State of California, and you wanted to get him out would you have had this kind of bombing done? Would you have had this kind of destruction unleashed? Is it connected somehow that the suffering of certain people matters more than the suffering of others? That some means can be used against those others and different people but not against those who are like us? I suspect this is so. I am not condoning the initial aggression at all. But I think that some of these things we see all over, everywhere I am not saying that we are worse than anybody else. I think the so-called civilisation, which we have in the world, is only skin deep. We have not yet grasped the real meaning of real unity of life in the planet, and our deep connection with it, and the ultimate realisation, not only that our origins are common that our destiny is the same. This doesn't get across. So, if we have to design a human society, these elements are something, which must continue to concern us.

But let me leave that aside. We became independent in 1947 and those of us who were young at that time can easily recognise the number of areas in which we have made tremendous progress. At that time, we didn't even make a fountain pen, or a pencil or a sewing machine or even an ordinary clip, in the country. We produced some textiles. We produced 1 million tons of steel. Less than twenty percent of the people could read and write, and we had famines, lots of them. We just couldn't do anything on our own. Nothing was made in India. Still, we have

made lot of progress. We make far more steel though not enough compared to many other countries. We have enough food. Some people may not be able to buy it but we have enough food. We make all kinds of machinery: sewing machine certainly, bicycles, mopeds and cars, and what have you. We can build rockets; we can build and launch satellites, right in this town. We can build reactors produce atomic energy. We do a great deal. We are trying to make vaccines. We have lots of things in biology and chemical technology and all manners of things, and in fact a whole lot of things, which you see, and on which the life of the people depends, are really made and built in this country. But we all know, that is not enough. And so sometimes we get very annoyed and very angry and we say what has happened to people. They are not patriotic enough. They don't work hard. They don't dedicate themselves. The government doesn't make good policies. I wonder about this. I get particularly upset with people of my age, who go and talk to young people and say. "Look what we did during the freedom struggle. Some of us went to jail. We gave up our studies. We had satyagraha. We fought in the freedom struggle. And many of the great leaders fought in the freedom struggle."

I get upset because, frankly, all this happened. The task was much easier I believe. Getting independence was much easier than building India. There was a mono cause: "If only the British left everything would be wonderful. If only we can get them out, everything else would be solved." There was a single question on which you had to get together. Sure enough some people did not get together. That is why the country was partitioned. But all the same there were one or two items on which you had to get together. It was much easier. All you needed was

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courage; a burning passion to be free, and then you would get people together, and make it very difficult. I don't think the world has seen anything like it. Certainly, in this century there has been no other Gandhi, and in many centuries. And I personally believe no other Jawaharlal. Sure, but the bulk of people, essentially, who participated in that struggle did marvellous things but I still maintain that the task was somewhat easier. We didn't realise it. Now we are on to a very difficult task. And the problem is that we don't realise that. In a sense, I think, we are fooled by our mythologies, when we taught of that one India, politically. We were never one India politically. Nation states, in any case, came much later. They are only a few hundred years old, in the whole world. It was the first time, since 1947, that we tried to build a nation-state, a civilisational nation. But to build a nation state, is something entirely new, and has never been done before. So the task is much bigger than we have thought. We are fumbling. We are not doing a very good job of it. But I think we should not get too discouraged because it is a difficult task, which we have taken up. And one of the things that I think we should avoid is this creeping cynicism about everybody else.

All the same, I am not here to give a eulogy about what has been done and the way we have been proceeding; quite the reverse. We have done many things and one of the wonderful things we did was, we had this Institute in Ahmedabad, the National Institute of Design, the like of which we didn't have in the country. If I were to look at this institute and try to compare what this Institute does with any kind of institutions of this kind outside, I would still put this Institute pretty high. I think the dimensionality of its work is probably not matched by many institutions of this kind. It is a marvellous Institute which would

stand out anywhere in the world, and stand with distinction, and be noticed. Looking at this town alone, we have the Institute of Management in Ahmedabad, which is again a very distinguished Institute, comparable with the best in the world. We have the School of Architecture and Planning. It has a fantastic reputation and is a marvellous place. We have the Physical Research Laboratory, one of the really excellent laboratories of the world in this particular area. We have the Space Application Centre.

So looking at this town alone, there is such fantastic capability in many areas. Such good great fantastic people, individually comparing with the best anywhere in the country. If you go all over the country, you will find innumerable places of all kinds not just science and management, but all the manner of people, which are unique. Some of the best people I have met in my life really are Indians. And yet somehow some paradigm seems to be wrong. Some images seem to be faulty, some dreams not quite put together. The sum total of all that we do is not making that much of a difference. You can say we are too few and the country is very large. This can of course be one thing. But I have a feeling it is more than that. I do not know whether it is true of your Institute, but since we came this morning, I talked to some friends in the city at PRL, SAC, IIM, so and so forth. And I found that of the young people who were here, about 70 percent of them are abroad. If I go to the airport in Bombay, there is not a single staff member, I think, whose children are not abroad. Previously they used to go abroad after finishing their degrees, even getting a Ph.D. Now they go after school, because it is easier. They have contacts. They are bright children and they can go. There is nothing wrong in going abroad. But the picture in front of us is such that more and more people whom we train,

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whom we educate, people who build systems, people who do science and research — their measuring sticks come from outside. And that is why their images of what it is to contribute, what it means to achieve, what it means to have a reasonably good life, those images are important. One of my children is also abroad, so I am not pointing a finger at anybody, specifically. It is not that all people we have educated have gone abroad. What I am saying is that those good ones who can manage to, go abroad. And this way we create essentially an impression that our goal really lies abroad. Take our canvas. May be we decorate it a little bit in our Indian motifs, but basically it is an alien canvas. And our designing, whether of science and technology, or ways of life, or furniture, or clothes, or ways of thinking, they are just slight variations, on the so-called universal theme.

We are going to have considerable difficulty adjusting to the present Indian reality and a great deal of difficulty in doing something about the major issues and problems we face in this country. We say we have very bad politicians, that our politicians don't know how to govern the country. I have had the good fortune of meeting quite a large number of them personally. I haven't had the good fortune of meeting so closely, the earlier ones. I can certainly say hardly any country has thrown up politicians of the calibre of Gandhi and Nehru, in this century. Even if I were to talk about the present ones, Chadrasekhar, V.P. Singh, Rajiv Gandhi and so on, in terms of quality, of individuals, in terms of capability, also in terms of insights, I think they would stand out amongst the run of politicians around the world. They are not worse than anybody who is governing the US or France or Britain. But our problem is that we have lots of good people but we somehow have not scored goals. We are

playing but we do not score goals. Why is there much friction in our society that good people tend to cancel each other? You do not want a charismatic dictator to come and lead everybody. So basically we come down to this that it is something in the body politic, something in the social milieu, which makes it very difficult for us to sit and honestly say, "Look, that person works in my field but he is absolutely superb. He is fantastic." We never praise anybody in our particular area of expertise within the country and say he is marvellous. If he is in another field, we are quite prepared to say wonderful things about him. But if it is in our field, we say, "He is all right, he is fine," But we will never say he is absolutely fantastic.

Why don't we take delight in other people's achievements in our country? Why don't we appreciate and savour what they do? That it is very different from being a camp follower, from being ruled over. This is something which one finds lacking. So, my dear friends, if I have to tell you something, today, I think one of the most wonderful characteristics you can acquire — I am talking to the new graduates — which is wonderful not only in terms of achievement but also in terms of giving you a beautiful life, is to take joy in the achievement even of your competitors, certainly of your friends. Take pleasure and joy in what others achieve. If you do that, you will find a lot of things they do, come to you also. You learn a great deal. The whole pitcher fills up so much, that you go accumulate this pleasure in your job. How do we bring this about? Remove this particular pervading cynicism on one side and give credit to everybody else for their achievements. Not take credit for these achievements. We have seen too much of that. But say, "He/or she has done it—fantastic. Why don't you go to him or her?" And so what happens is that there

may be all manner of capabilities here and you will say "Hindustan me kohn hai? Bahar se leke aao. Brand name tho milenge na?" So we get brand name for toothpaste or brand names in soft drinks and brand names in this and that. How will you begin to create anything? All those things, which are just absolutely nothing, all the outside agencies that are big in our country, they see things which are absolutely trivial except for the brand names. We pick them up because the brand names are popular outside. But why we keep on demolishing everything we do in our country, all the time? Why don't we take more joy in what we do? So there is something wrong with the paradigm, something wrong with the picture which has been painted. I think it is wrong in politics and probably we have to worry about this also in our educational institutions. We are not self confident. This is not chauvinism, not being cocky. We must have self confidence and know that we are no worse than anybody else. If something needs to be done we can do it. And get together and do it. If you can't do it yourself, network. Go to people and say, please help. One of the things I have found which always works is, if you write to somebody, say we are wanting to do this, we need help, we don't know how to do it. Will you please come and tell us? You will be surprised how often people get together and come and tell you. I have encountered this innumerable times. I have been the greatest beggar in this regard, asking for help form all kinds of people and saying, I don't know how to do it will you come and help? And if you learn to do that, and if you establish this networking of people who do this, then there is no question that we can go a great distance.

Let me tell you a little bit about what Sharadaji hinted. I have talked at this Institute on a couple of occasions about something

which is exciting me these days and around which a lot of consensus is building around the country. Day before yesterday we decided something. We have an organisation. We sent a letter signed by Malcolm Adiseshaiah, P. N. Haksar and myself, along with a statement to all the political parties. We have not released it yet but since I am speaking about this now, I supposed it stands released. We wrote to them saying that a movement for mass action for national regeneration has been discussed at several fora and has received enthusiastic response from a very wide cross-section of people, including political leaders, vice chancellors, teachers, scientists, and other concerned citizens. A summary of the main thrust of the movement is attached. The movement reflects the aspirations of a very large number of citizens and we believe should form part of the election manifesto of your party. We sent it to all political parties. So it is non-political but yet we have to send it to politicians. Now let me read it to you.

It is called Mass Action for National Regeneration. We said we talk of our accomplishments. They are significant. But let us not forget that ninety percent of our people are without any sanitation facilities. Seventy percent of our women are illiterate. Half of our people don't have safe drinking water. While most of our people are poor, close to 30 percent are utterly poor. I have not used the word poverty line. Forty percent of the world's illiterates are in India. Our population still grows at 2.1 percent a year. If we proceed the way we are going, in another 30 years, 70 percent of the world's illiterates and 60 percent of those without sanitation and safe drinking water might be Indians. These problems must be solved fast. Or they will get worse with every passing year. Most of our other tensions and problems are connected

with these basic deprivations in our society. And I have no doubt in my mind that what happens in this town, what happens in Punjab or Kashmir or elsewhere has connections with this. We need a major national focus, overarching various, political and social divides. We need to get engaged in a major task, a massive involvement of people, the kind of which we have not seen since the calls of Gandhiji for non-cooperation and civil disobedience. Only this time it will be for cooperation and collective action, a mass action in which, for one year, the universities, colleges and research institutions will engage in major transactional relationship with society. Besides their classrooms and buildings, they would teach, learn and work amongst the people in fields and factories and villages and city slums. NID already does it, I suppose but more of it needs to be done. All patriotic people of the country, teachers, students, workers, office employees, administrators, professionals, retired government servants, including defence personnel, will immerse themselves — body, mind and soul — in a major confrontation with the problems of illiteracy, population, health, environment, sanitation, etc. Such an engagement besides breaking the back of our basic problems, would also bring more meaning and relevance to our teaching/learning processes, change that canvas I was talking about, our science and technology, our plans and policies and our cultural canvas. I hope many of you, if this gets going, will join this movement.

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"THIS IS ALL PART OF THE DESIGN PROCESS. OVER THOUSANDS OF YEARS, OUR ANCESTORS FOUND THAT THERE WAS A PERFECT SIZE OF BRICK. THEY FOUND OUT THE AMOUNT OF MUD YOU COULD PICK UP IN YOUR HAND, THE AMOUNT THAT YOU COULD PAT INTO A NICE LITTLE SHAPE, AND THE AMOUNT THAT COULD FIRE AND BURN RIGHT THROUGH WITHOUT CRACKING. YOU COULD CATCH IT, YOU COULD HANDLE IT. YOU COULD USE ONE HAND AND HOLD IT. YOU COULD HAVE YOUR TOOLS IN THE OTHER HAND. YOU JUST CAN'T DO ALL THIS WITH CEMENT BLOCKS. THIS IS AN EXAMPLE OF FALLING AWAY FROM THE SIMPLICITY, PURITY AND BEAUTY OF DESIGN THAT INDIA IS WELL KNOWN FOR."

- Shri Laurie Baker

## Be Guardians of Indian Good Taste

faculty, new graduates and friends, I am always a bit chary about the words that we use on these occasions and I decided to make good use of the dictionary this evening while talking to you. In particular I wanted to know exactly what convocation is. So I turned to the dictionary and it says that a convocation is a 'calling together of like-minded and like-intentioned people." I also wanted to know exactly what a diploma was. The dictionary tells me that it is a document conferring an honour and a privilege, such as a college certificate, of a degree of perfection." Then I wanted to know exactly what the word "to graduate" meant, and the dictionary tells me to graduate means "to perfect oneself."

So now you know why we are all here together and we know that those in front of us have, to a certain degree, perfected themselves. I want to congratulate all of you in the front rows. I think it is no mean achievement to be where you are today. First of all, I know that it is very difficult even to get into this institution right at the beginning. Even my own children have attempted and not managed to get here. Once you are here, you are part of a very unique organisation, an institution, a family as our Chairman has said. My congratulations are very wholehearted and in my estimation your degree of perfection, as the dictionary calls it, is not at all comparable to the ordinary bachelor's or master's degree in arts or in science. As we know, there are literally hundred and hundreds of colleges all over the country and most of them have hundreds if not thousands of students and every year lakhs of them become bachelors and masters of arts and sciences. You, on the other hand, have been in this unique institution, a real centre of

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excellence with hardly any other institutions in India or indeed in South East Asia to compare with it. So my congratulations include my respect and my admiration for all of you who have now achieved this choice particular degree of perfection.

Then I want to also congratulate the faculty members and all those who help in the running and management and guidance of NID. I know perfectly well that their work is not an easy one. I am not referring to managing you yourselves. I think the thing that most of us and most of the public do not understand is that it is a very difficult job for an institution like this to get people right at the top of their profession, topnotch, first class people who can pass on not only their own knowledge and skills, but those of other experts as well. I think also it is not realised that such people as we have here with their own particular skills, could probably sell themselves or their skill or the products of their skill for a larger sum of money very much more than what NID is able or allowed to pay them, which really is a work of sacrifice. And I admire them very much. I think most of your success is due to them.

From congratulations I should like to go to apologies. This is a very great honour to be asked to speak to this particular group of people. My association with NID has always been such a happy one, and I have always enjoyed every moment that I have been here. So when I was asked on the telephone whether I would address you, I said 'yes' without hesitation. It was only after the disconnection of the phone call that I started to ask myself whether I was worthy or capable. I apologise to you if I have taken the place of somebody more worthy who should have spoken to you instead.

You will perhaps have noticed that I have two or three times

used the word 'degree'. Many times I have been confronted by parents, who say, "Of course we would like our daughter or son to go to NID but you know they only give a diploma. They don't have a proper degree." Well, I have already told you what the dictionary says a diploma is. It is an honour, a privilege. The word 'degree', when I consulted my dictionary, is quite a different thing. It comes from the Latin words de gradus. Gradus, in Latin or Roman, is a step and a degree merely means that you have achieved one particular step in the ladder of education. There is quite a difference between the definition of a degree and the definition of a diploma. And I think it is very right that we are giving you an honour and a privilege rather than a mere step.

On the other hand, I think you have to remember that usually when you take a step at the bottom of a flight of the stairs, there are more to follow. I was thinking of it as I was walking along here this evening and I found that the spiral staircase had gone. I remembered as a child my parents used to take us for our holidays to various places of interest, particularly buildings, old buildings, and my favourite one as a very small child was when we went to a particular castle in Wales. This castle was perched on top of a hill. It was rather square, and it looked very big to me, and at the corners there were round towers with battlements on top. And I got very excited when father told us that we would climb up one of these towers. And we had come to the bottom of this tower and there was a beginning of a spiral staircase. Going up the stairs it got darker and darker. Then we came to a huge big old thick oak door. We as children always got there first and we had to wait till my father arrived to push this huge door open. It was exciting but it was also a bit of a disappointment that as soon as we were through the door

there was another spiral staircase, in fact the same spiral staircase, but it was going on up to another floor. I remember what my father told me, that this door was part of the defence system. If you lived in this castle a long time ago and enemies got it on the ground floor, you immediately hopped up the spiral staircase to go upstairs. You pulled this great oak door behind you. Closed it and barred it, and went on up to the top. If by any chance the enemy managed to batter his way through this door you were still in command because you could throw down stones on to him, and what used to make me go all shivery was that you could even pour boiling oil on his head. I thought this was a bit of a dirty trick but anyway I often wondered how they managed to have boiling oil up at the top of the castle ready to throw on anybody who was coming up the steps.

Really what this degree of perfection means, is that you have arrived at this first big door, the big oak door, of the spiral staircase of my childhood. The door is opened and there are still a lot more steps to go up. And I have to warn you, as my father jokingly warned us, that we should look up to see that there were no people about to throw down stones or even boiling oil on us. I don't wish to carry on in this pessimistic way. This is a day of rejoicing. So I wish you all very good luck in your next climb.

I found from previous convocation exhortations that each convocation speaker seems to give you a new title. I find that your predecessors have been addressed as the New Generation of Designers, Designers of Future India. Designers of a Better Life, Designers for a Changing Society and Designers of Culture. They have been exhorted to face national realities, national development, and so on. So I have been wondering what sort of

designer you ought to be and what label I should put on you as you sit here before me this evening. It seems a bit early for me to tell you to be the Designers for the 21st Century. You have got quite a long way before you get there. Nor can I exhort you to be Designers for Space, Outer Space or the Universe. I think we have not got there, either.

During the last week I was thinking of asking you to design for a waterless India. I come from Kerala, where we always think there is an excess of water, and unfortunately this year there was no excess. Many villages, many towns are almost without water. This seems quite incredible when one knows Kerala, but this is so. It is not only in Kerala, but also all over the country that there is a definite water shortage. So I wondered whether I oughtn't to exhort you to be designers for a waterless India and see what you can do about it.

We seem to be getting browner and browner, instead of greener and greener. I wondered you should not be asked to be Designers for a Greener India. It is very much in my own heart, this sort of desire, but in the end I decided I would not ask you to be anything in particular. You be your own sort of designer, and do whatever you want to do. But I do want to say one thing to you today, and that is that this honour and privilege which the Chairman and the people responsible have conferred upon you also implies certain responsibilities. What sort of responsibilities are they? There are quite a lot of them. I was thinking again of former convocations. Every time we are reminded that India has a very wonderful history of design, in almost every sphere of design. I can't help thinking of Charles Eames, who was so intimately connected with NID, and of his insistence that we recall some of the simple things that had been designed and

evolved in the history of India.

He used the Lota as the symbol of simplicity, purity and perfection. He used to talk bout the Indian Lota. It is a humble thing. But at the same time, it is so beautiful, so simple, so Indian, so light, and so functional that really we got the feeling from him that it was the epitome of good Indian design.

You are the ones who have to keep up this standard of Indian design. I know perfectly well that you are not going to design Lotas and simple things like that. But if I am going to call you anything, I should think in terms of calling you the Guardians of Design. Rather, it is what we call taste: you have to be guardians of good taste. Take typical Indian things like sarees, chappals, charpoys, and organic buckets that we use for bringing up water out of a well. All these are so right for India. The designs are something you just cant get over — in the direction of design of simplicity and purity and beauty all rolled into one.

I often think of another item of design that we take very little notice of. I would like to add it to Charles Eames' Lota — the ordinary, simple brick. I presume that people many thousands of years ago, who had to live in caves, found the caves dark and damp and dismal and probably dirty. There was no food and they were probably not the sorts of caves where food could be found. They probably tried leaves and reeds and things like that to make a more comfortable cave. But the problem with them is they get eaten or rot away very quickly, or get blown away in the wind. So they probably turned to things like mud, which was all right at first, if there was enough clay and sand to mix together. But as soon as any rain came or any sort of water got in contact with the mud, then they found it all dissolved into a very messy affair and the caves disappeared!

Then the gods gave the gift of fire, and man found that he could not only improve his food by the use of this fire, but also that if he burned the mud or introduced the mud into the fire, it would last very much longer. Then of course he found that he could not just put a fire in a great heap of mud and then use that as a house. He picked up the mud, made a nice little pile of it, patted it together, put it in the fire, and it was a thing he could handle and use. The interesting thing to me about a brick is that although it was developed in India very many thousands of years ago, it was also designed, shall we say, or evolved, in the other continents of the world as well. In those days there was no communication between people in different continents. There were no mass media or methods of travel. After all these thousands of years of making bricks and designing and using bricks we find that when people from different continents eventually get together they more or less design the same perfect things. The brick has been evolved and it has been designed not by somebody sitting down and getting a degree, but by finding the right way of putting mud, so that it can be used more permanently.

Strangely enough, in spite of this recommendation of thousands of years of usage, in the last twenty-five years or so, so many of us have been trying to better this design! All sorts of 'blocks' have come our way. There are these soil cement blocks, cement blocks, sand lime blocks, compressed mud blocks, stabilised blocks, and any number of them. I think they all look terrible and I think they are on the whole fairly bad design. But we have tried to use these things when we already have this very good design of something that we can use in all sorts of ways. We can use it for flooring; we can use it for walls; we can use

for the roofs, we can use it for furniture. You have only got to look at these modern blocks, instead of being beautiful colours; you find that each brick is of a slightly different colour. It is also of the right size so that you can pick it up with one hand. You can use a trowel, put your mortar on the wall with the other hand and put the brick down. Somebody throws you another brick; you catch it like a cricket ball, put that down and so on. Now you come to this dull, dirty, grey looking blocks. You have got your wall up to this height, then you put your mortar, then where is this block? You put you trowel down and you stagger. You then pick up your block and put it on the wall, then where did I put my trowel? You put the mortar again and you bend down again. Before long, you get very, very tired of these blocks and the higher you go in the building the more difficult it is to use them.

Now this is all part of the design process. Over thousands of years, our ancestors found that there was a perfect size. They found out the amount of mud you could pick up in your hand, the amount that you could pat into a nice little shape, and the amount that could fire and burn right through without cracking. You could catch it; you could handle it. You could use one hand and hold it. You could have your tools in the other hand. You just can't do all this with blocks. This is an example of falling away from the simplicity, purity and beauty of design that India is well known for.

I know perfectly well that you are not thinking of designing either Lotas or bricks. You are coming into this age of electronics and genetics, and all these hi-tech things. Strangely enough, I find myself very disappointed in the design of these things. In the institution that I work with and belong to, I see a whole

group of people with this new wonderful computer in front of them. You all know the sort of things balanced just above their knees. It is a sort of plastic typewriter and there is another plastic box with a few holes in it. I think they put in things called floppies (in my day, floppy was quite another person). Then above that there is this sort of television set. And then over on this side there is another device, and out of this come yards and yards of apparently China blue, folded toilet paper. Then, on this side, there is a place to put your books, your notes, your copy, your handbag and so on. And then you see these people. They remind me of a flock of hens and cocks all pecking about for food on a rubbish heap. Up they go, down they go, over there, down, up! I think this is absolutely shocking as modern design. I think it is mad. I am quite sure that all that will result from it will be lot of spondylitis, and quite a good chance of ruining the eyesight and also contracting dreadful things like cancer. Now surely we ought to be turning our attention and putting into all this the same sort of perfection, simplicity, beauty, functionalism of Indian design and so on to this sort of thing. We should use our commonsense and we should apply taste.

This word taste worries me quite a lot. We talk about people having good taste, we talk the Indian design being in good taste or we talk about somebody else who dresses in extraordinary clothes as having very bad taste and so on. Now I tried to find in the dictionary what taste was. I found on page after page with all sorts of explanations. I had better tell you some of them. Taste, I was told, is the sensation excited in certain organs of the mouth by contact with soluble things. I suppose this means things like chili chicken, and Nescafe. Next the dictionary said that taste is the act of tasting. I am inclined to agree, but it is not

the sort of taste I was looking for. I went down the page and found that a person can have a taste for something. I don't think it means for chili chicken. It goes on to say - it is a predilection for something, that something you have thought of and want very much like for music or literature. But it does not tell me whether this predilection for music is good taste or bad taste. I began to try and find out what the criteria were what were the standards that turned things into good taste or into bad taste. There was also mention of taste buds. If my parents heard that one of you have a predilection or a taste for classical music, they would say, "She has good taste." But if I tell them that really that you are more interested in rock 'n' roll, they would say, "It is terrible taste, bad taste." On the other hand, my grandchildren would have exactly the opposite reactions. So I am immediately in a puzzle about just what standards we use. Does it mean that age is concerned with whether it is good taste or bad taste? Or that what I have is good taste and what you have is bad taste?

Fortunately the dictionary began to come nearer the mark when it next said that taste is also the faculty of discerning and enjoying beauty or other forms of excellence. Now you, the young gentlemen on the front, mustn't think that that means the young ladies, for the dictionary goes on to say that this beauty which is in good taste is beauty is one of the forms of excellence. Taste also is disposition of works of art. Looking up disposition, I found that it means arranging things, putting them in order, setting them out. Now does that mean that whatever sort of works of art that I have, or things that I have designed, is in good taste or bad taste just governed by whether I put them, how I arrange them? I do all sorts of painting and I put them up

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on the walls at home, but I don't arrange them. I put them where the nails are, on the wall. Some of the walls have very few nails because they are made of stone and other walls are made of wood and brick and can take lots of nails. But surely taste does not depend on this sort of disposition?

The dictionary went on to speak of taste concerning art and literature. Again there were no standards or criteria given for deciding whether a piece of art is in good or in bad taste. I get into a lot of hot water over my own opinions about good art or recognised art. My son has quite a collection of copies reproductions of Picasso's work. Most of the girl friends that Picasso painted seem to be cross-eyed. Their ears are completely dismembered and put in other places and it seems altogether in bad taste as far as I am concerned. Then we have a book that my very small granddaughter is very interested in. It is a book of reproductions of pictures by Botticelli. Botticelli's taste seemed to be for rather muscular ladies and very tall, fair gentlemen and none of them wore clothes. Occasionally they have clothes in the wrong places. Again, I don't know how one puts them in the category of good or bad taste. Or should we only look out at the way he paints these things? So I am still no nearer to finding out what this good taste is. I think I am a little bit prejudiced, because when I was a child, my father had an older sister, who used to come and stay with us and very primly she would watch us as we played around the house. Sometimes she would come out with remarks like "Laurie, the Queen would never say a thing like that," or "The Queen would not do something like that," so that, by the age of four, I had decided that what was good and what was bad had been decided by the Queen. The only trouble was that my older brothers and sister had been

reading Alice In Wonderland. So it turned out that the queen I was thinking about and the queen that my brothers and sister were thinking about, were quite different persons from the one my dear aunt was thinking about.

Yes, what is good taste and what is bad taste? Is it the way we say things, or is it the way we do things? One has a taste for art or literature but we are not particularly concerned with that. Well, we have done quite a lot of writing during the five or six years that we have been here. To me, literature as a schoolboy just meant Shakespeare and nothing else. We had to do Shakespeare whether we liked it or not. I can remember the first time in high school I went to I got into the school play Shakespeare's Midsummer Night's Dream. I applied for a part and was given in which I was a fairy and the literature part was nil. Towards the end of my school career, at one time I was Malvolio. Again, I am not quite sure how we apply this idea of taste.

The dictionary goes on to say that taste is also a question of conduct and it adds to that, for good measure, especially in the moral aspect as good or bad.' Now here I thought we were getting a bit into deep water. What about our conduct? Has it got anything to do with our design? Well, I think actually it has. You see, I think whoever it was who decided the design of a computer or a collection of computer operators was, was not behaving very well towards his fellow men. He had not bothered to consider what would happen to their necks as they pecked up and down looking at the typewriter, and looking at the television set, and so on. Again, I went back to my parents' ideas of the Victorian virtues. Has good taste anything to do with things like truth, and honesty, and integrity, and serenity? I think now we are getting somewhere much closer to what is good taste

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and what is not good taste. There is this business of beauty, and other forms of excellence which fortunately has come into the picture. But over this question of truth, in my form of design, that is designing buildings and things for people to use, truth is very much a thing that I am concerned about. I really do dislike, and I think it is in very bad taste, making fakes and imitations.

I was in New York and was very fascinated with all those skyscrapers. There they were: huge structures, nothing like anything I ever build or design and I was particularly attracted to one. It was concrete and glass building going right up into the sky. But down at the bottom, it had a beautiful, solid, polished granite base. I thought, "Now here's something that I can understand, something I appreciate." I immediately left the car that we were in, and went across to feel this nice granite, this good, solid, honest truthful base and I pushed my hand against it to fee! it. To my horror, this granite moved and when I tapped it, it made a noise that was nothing like the noise that granite makes when you tap it! It was, I discovered, a very thin sheet of metal that had been treated to look - I don't know by what process, some very, very hi-tech process — exactly like beautiful granite. There it was, a thin sheet covering these great steel, structural elements behind it. I immediately thought, "This is shocking, this is bad taste." If I had not gone up there and pushed it, I would not have known. When I looked at it, I approved of it. I thought it was nice. I thought it was wonderful, having a good solid base for this great airy nonsense up in the air. Then I felt I had been cheated, when I found I could actually tap it and push it in and so on. I was puzzled, because in the dictionary and in all the reading I have done; I have still not been able to find just what this taste is. How do you assess good taste and bad taste?

There is another thing that is quite as bad as fake and imitation which we talk in poetic language as gilding the lily. I have told you about how I love brick walls. They have all sorts of colours in them. They remind me of a crowd of faces. You have all got two eyes, one mouth, one nose, two ears, a chin, two cheeks, a mop of hair (some of you). You all look different. Not one of you looks the same as anybody else; it's the same with a brick wall. It is a wonderful thing as a composition or to go up to and look at it. There are all these differences in it, each brick different, with its own character. I have used stones and mud and wood in my work, but for the most part I use bricks because I think they are such a wonderful material. You can do so many things with a brick. So many variations, and all of them can be truthful and honest and solve problems in different ways. To my horror, I find some of the young people who are doing this so-called Laurie Baker architecture, are painting the bricks and making sure that everybody knows they are beautiful colours. Then they are putting very pronounced white pointing of mortar all the way around the bricks, so that these different little faces of different colours all stand out. Then they go a step further. Some of them are even getting pots of varnish, and painting the whole wall with varnish so that it sparkles and shines for a short time. Now, this is what we call gilding the lily.

I think the brick wall is in good taste. It's nice, it's refined, it's simple, it's honest, all these things. So, why do we have to go on meddling with it, or trying to improve on it? So this is another aspect of taste that worries me. I know what I think is good taste. Anybody who agrees with me also has good taste. I don't go on with the other side of the coin that if you don't

agree with me you have bad taste. But that is really what most of us think about taste. It applies to all sorts of things, everything that you do: furniture, clothes. I remember many years ago, when I was a student, one of my girlfriends was a dress designer, and she was very keen on Christian Dior's creations. I remember her horror, and her indignation, when some multiple store owner got hold of a Christian Dior model and produced about 50,000 replicas and sold them for a pound a piece or something like that! He had put on a few sequins here and there. He had 'improved' the colours by making them much brighter. Well, this sort of thing is gilding the lily.

There is a historical aspect. We tend to label whole groups of people. When I talk about history, I am not thinking about the Rani of Jhansi or Black Hole of Calcutta. What I mean is that whole communities, whole nations at different times, in different places, have been labelled as having very good taste or terrible taste.

We think of the Greeks as having very good taste. They had those beautiful temples, made of beautiful honey-coloured stone. They laid emphasis on order and perfection; they had rules for making the perfect Ionic or Doric column. They had beautiful garments, really in good taste, sparkling white, edged with gold, the toga. Of course it was not in quite as good taste when the wind blew strongly. But we always think of all that is connected with ancient Greece, as being in good taste, whereas in actual fact, there were things which weren't quite in keeping. They used, like Martina Navratilova, a headband around the head. They had cross garters that crisscrossed up their leg and then went all the way down again, which didn't hold anything up! I wonder why they went in for that sort of thing. And they

used to have those parties and give hemlock to drink to people whom they didn't approve of! But on the whole, we think of them as a nation of good taste of that particular period.

Now, my parents, in the era that they grew up in, the Victorian era, thought exactly the opposite. When they thought of building, if they wanted a new house, they made it look like a castle with a little turret, battlements, stones at the edges, brick in between and so on, with stained glass windows. Their railway stations were made to look like palaces, even their comfort stations had to be under the ground. Above, it looked like the Louvre; men's entrances were on one side of the road, ladies' on the other. Everything was supposed to be in good taste but really it was terrible. Especially their furniture, horrible polished red mahogany with probably blue or green velvet upholstery tacked on with nice little brass nails, which were designed to look like snails, or like rosebuds. Their clothes, the bustles, and the crinolines and the wasp waists and all these bunches of lace; they garnished themselves with pale lavender that looked like mosquito netting. What excess of clothing! It was the same with their food. I can remember pictures of the cookery books where they had a great big silver dish, very ornate, and on it was a huge pig's head with an apple in its mouth. It was garnished with oysters and Brussels sprouts dreadful taste. And we all think of the Victorian era as being one of the excess.

Now it is very interesting that whole nations or whole communities, at a particular period of time, have been assessed in this question of taste. This is what I mean about history. Does it mean that if we have good taste now, it won't be good taste in a few years' time? When I asked you to be Guardians of Indian

Good Taste, does that mean that people will look back at what you are doing in another 200 years and say, "What terrible taste they had or what good taste they had?" I am still puzzled.

Well, I can go on and on, but I shall go only a very little longer. I again resorted to the dictionary to find out what it says on the idea of perfection. You have been given an honour of reaching a particular grade of perfection. Now unlike the whole page telling me what taste was, and still not telling me what was good and what was bad taste when I turned to see what perfection was, there was only one word. It said "perfection, faultlessness, without fault." Now I think this is really what I have been thinking about all the time. When I talk about what is good taste and what bad taste; the question is whether whatever we design, whatever we use, whatever we do whatever we make, is faultless or not there is an era in Western architecture, the Middle Ages, which really was to me the height of perfection. I almost feel drunk when I sit in some of the old cathedrals and churches in England. There were these slender stone columns going up nearly a hundred feet into the air, carrying beautiful vaults, domes and arches and in between all this, exquisite glassware, stained glass and so on. It is absolute perfection. The detailing is so beautiful, so faultless. As an architectural student. I was allowed to clamber up to the roof, and move about. What amazed me more than anything was that the detailing and the perfection were still just as good where you could not see them. It was not just for the sake of something to be seen near the front door or where everybody went. Everything must be faultless. There was another very interesting aspect. The religious mentors of these craftsmen and the people who employed them admonished them:

You have no right to be faultless like this. Only the Almighty, the Creator can be faultless."

So these people who went around with their chisels and knock off a little bit of their perfection. I remember seeing a row of saints right up high on the roof in stone, beautiful bits of sculpture. When we climbed up, and went along some scaffolding to see them, measure them, draw them and photograph them, there was one saint with his nose chipped off. At the end was a bishop or an archbishop in his gown, in stone, a beautiful bit of work. His row of toes had been knocked off. You could see the hammer marks, where this man who did not want to compete with the Almighty, had been made to spoil his work.

I think we are a long way from getting to that form of perfection. But this is what we ought to be aiming at, something that is flawless, and something that is faultless. It may be right now. And this is what we have to aim at. It is right for the people we are designing for. It must be faultless in their eyes. Its for this particular time, of history of the world, and mankind, we are designing for the people now. And, of course we are designing for a place. What we do here, and it may be faultless here, need not necessarily be faultless in another place or another part of the world. So I have no hesitation in asking you to be guardians of India's good taste. I think the way we and you have to get it must try and do everything that we create and design without faults. I congratulate you again and I wish you luck in being guardians of India's good taste.



"NID'S OBJECTIVE THAT A DESIGNER'S EDUCATION MUST CREATE WITHIN HIM A CONCERN FOR THE QUALITY OF HIS PHYSICAL ENVIRONMENT AND ITS RELEVANCE TO HUMAN NEEDS IS SO SIGNIFICANT. IF THE GRADUATES COMING OUT OF THIS INSTITUTE IN EVER INCREASING NUMBERS CAN PRODUCE RIPPLE EFFECTS IN THEIR SOCIETIES OF A PURSUIT OF FUNCTIONAL EFFECTIVENESS AND BEAUTY, THE QUALITY OF NATIONAL LIFE WILL BENEFIT IMMENSELY. THE GREAT TRAGEDY WITH EDUCATED PEOPLE OFTEN IS THAT THEY KNOW INDIVIDUAL ITEMS THOROUGHLY BUT FAIL TO SEE THEIR INTERCONNECTION IN RELEVANT SITUATIONS AND BRING THEIR KNOWLEDGE INTO EFFECTIVE PLAY UNDER APPLIED

CIRCUMSTANCES. DESIGNING OR MANAGEMENT BOTH DEPEND FOR ITS SUCCESS ON SEEING THE INTERCONNECTION BETWEEN APPARENTLY DISPARATE SUBJECTS."

# Understanding the Interdependence of Design with Other Professions

hri Sharada Prasad, Shri Satwalekar, members of the faculty and staff of the National Institute of Design, the students of the Institute and very particularly those who are graduating today, ladies and gentlemen.

I am of course deeply honoured by the invitation to address this Convocation. I am not sure how I came to be chosen but in going through the earlier addresses of those distinguished persons who addressed previous occasions I find one common strand. They were all tricked, cajoled or pressurised by common friend Ashoke Chatterjee to be here. He may have had good reasons for asking me this year but so far I have not discerned any.

In searching for a clue I find in the literature about the NID, I read recently that the Institute seeks to emphasise the understanding of the interdependence of design with other professions. Perhaps, the invitation to a professional manager increases the comprehensiveness of that list. Nobody today will deny the link that exists between the promotion of effective design in products, processes, environments and systems and the role of the professional manager. Indeed, this is yet another milestone in the recognition of the role of the professional manager in India, who essentially came into noticeable existence less than four decades ago.

It is possible to draw some parallels in the respective Indian saga of the trained professional manager and the trained design specialist. Both started from a first generation base in independent India. That's about a little over 40 years now. The first two IIMs, the one here in Ahmedabad and the one in Calcutta, and NID were set up about the same time. The practising managers of that period were essentially from families, which had backgrounds of law, medicine, teaching, government

administration, defence services or landholding — hardly ever, business. They operated in a society, which had traditionally not honoured business or its employees. India was the meeting ground of three of the most class conscious cultures the world has ever seen — the Hindu caste system which placed the businessman below the priest, the warrior and the administrator, Islam which conferred elitism on governance court attendance — and left trade in the hands of financiers and merchants, and the Victorian British administrators with their deep contempt for business. Yet those who were endowed with perception could realise that India's economic development depended on the efficiency of its management: managers in turn realised that if nothing else, to earn a respectable place in Indian society, their profession needed to be seen as being knowledge-based if they had to attract the best talents of the country to opt for a career in the field of professional management, to cope with the increasing complexities of modern business.

Whether it was by accident or by design, the success was stupendous. The scramble for seats in the MBA programmes amongst the cream of the universities and even of the technological institutes, bears ample testimony to the fact that the professional manager has come to be accepted in the top echelons of Indian society. Not all the consequences are beneficial but that requires a separate discussion.

My point in stressing this example is to say that new professions have to be introduced in today's India, consonant with the pioneers' perception of a need even if that need is not openly felt: The training for that profession, if it is to find acceptance, has to be truly professional in bringing into play the structuring of training programmes, intellectual knowledge-based proper-

ties which make it distinct from the traditional pursuit of that profession. Only when the value of that application of intellect and knowledge finds expression in a real life context does society at large begin to realise that a respectable new avenue of the application of talent has become acceptable. The National Institute of Design set out three decades ago to introduce professional designers in this country of traditional crafts and in an indifferent industrial milieu. From an unsure beginning it has now become an intrinsic part of the country's progress because it has been able to interact with its existing and potential users.

But whether it be a professional manager or a professional designer there is one common task before every educated Indian — that is to help the country to usher in meaningful modernity. We in India have a great gift to use words without necessarily understanding their full significance or true import. We have glibly used for example, the words 'secular society' for forty years, and when we are now confronted with the necessity to define that we find ourselves in complete divergence from the accepted meaning of the word in the Oxford English Dictionary or elsewhere. We went on with a 'socialistic pattern of society' and a mixed economy supporting it, till the implications of that made us change our concept of what the mixed economy was meant to do. But we used those words almost like gospel. This applies to 'modernity' too in a big way. In many spheres of life we have confused modernity with Westernisation and, through misguided acts of both imitation as well as confrontation, paid a big price for this confusion. Modernity which I believe is the prime task of every educated man to usher in meaningful modernity, modernity in its finest sense means to live in the environment that one's society has deliberately chosen to construct (or to accept) after a full analysis of the options before one and to do so rationally, self-consciously. This is what since makes available — the power and the knowledge to be effectual, to predetermine results, to control change, the knowledge of what is possible, an ever-widening knowledge of ever-new possibilities — and the technique of implementing these. This is modernity.

Modernisation then is that process by which a country become conscious of itself and of its processes and of the kind of country that it is possible for it to become, and by which it finds or constructs the technical means for executing such choices. Our awareness of this process and our ability to implement our decision technically — these are the measures of our being modern.

One of the greatest examples of true but often misunderstood modernity is associated with this very city. Gandhiji's passion for the charkha and the dignity of a self-supporting village society was in every respect the epitome of modernity. Born in 1868, educated in England and practising law in South Africa he returned just short of fifty to take up what turned out to be his life's mission — awakening the consciousness of India. He was the first person in politics to appreciate the totality of the poverty of the country and realise the solution lay in the villages. He considered all the options before him and chose his path for the most effective results. In looking for a symbol or a message around which to weave his movement he, who was not unaware by any means of the technological developments in the world, chose the simple spinning wheel, which at once symbolised self-reliance and economic progress to the countless millions whose cause he was espousing. In that single

decision he not only characterised the true nature of our economic priorities but also gave birth to novel methods of mass communication and a totally new stimulus to designing of handloom products which has not ceased even today.

It is our own lack of intellectual appreciation if we think of a charkha as a fad and Gandhiji as archaic instead of seeing the informed mind process of the choice amongst options and keeps that spirit up to date.

I do strongly believe that the best demonstration that any professional in India today can provide to remain modern is in the ceaseless pursuit of quality in an all-embracing sense. Today, we are taking giant steps in liberalising the economy and opening doors hitherto bolted. But our faith in the programme is based on the expectation that our exports will mount. Price is only a partial factor in the field of export promotion; quality and service are far more important. These are not attributes, which can be turned off and on at will — so that one moment we may demand the best for exports and the next moment we are indifferent to what we produce for the home market. This which has hitherto been our attitude to exports. The country will be fully competitive in world markets when the quality of our products and services in the home market match world standards. It is only then that exports will come naturally. Known in pre-Second World War years as a producer of cheap quality products, Japan changed its character within a generation by sheer will power and dedicated all comprehensive managerial action to a society which knows its obligation in producing sophisticated equipment of world class quality and is itself a discriminating buyer of quality products in its own superbly appointed departmental stores. The marvel of the

Japanese story is the total and enthusiastic committed participation they organised for their 'zero defect' campaign, which swept factories, offices and every conceivable workplace with genuine fervour.

The attitude towards quality in this country at the level of the shop floor or the marketplace — and not the conference rooms of seminars — is a lamentable confirmation of the fact that we have strayed far from the path of modernity. We live with perpetual moans against the quality of our automobiles, electric gadgetry or public services not because we lack the manual skills or engineering or systems know how, but because by managerial action we will the products to be inferior and I regret to say often consciously design the products to be inferior and are ignorant of our own potentials. And in the ultimate analysis this is a colossal management failure arising from conceptual ignorance of the great role that the manager can be destined to play in his own direct sphere of influence to usher in meaningful modernity. Here as in so many spheres, in raising the quality of human life, education has a crucial role to play. I am more concerned here with the ostensible value of education as seen in society. The person who has received superior education in a particular area of skill and knowledge must be clear in his mind about the manner in which this knowledge is going to be applied in his work context — not directly, as say a personnel manager's application of his knowledge of industrial legislation, but beyond that, in setting up parameters of self-discipline and conceptual equation of the forces to which his daily life is subjected. The chartered accountant must be able to use his up to date academic knowledge not just to increase the routine efficiency of the senior clerk of twenty years' standing but to

show that clerk entirely new horizons of the use to which accountancy can be put to the benefit of the organisation and to bring a sense of joy into the clerk's routine work. The new graduate engineer will never teach the skilled toolmaker how to do his job better, but if he has to earn the respect of the craftsmen under him he will have to display competence in product or process designing, planning or material utilisation to a degree of undisputed excellence. The ability to make such meaningful application of knowledge will only be found in those who have not just absorbed the knowledge thoroughly but are imaginative enough to know how best to create purposeful effects with the use of such knowledge and earn the right from employees of long standing to lead them in the paths of perfection.

I have so far deliberately not tried to take these examples into the arena where you specialise, but would like to think that there are many relevant parallels there. Here in this celebrated Institute, you have believed that an effective performance depends on the acquisition of knowledge and skills and in growth and maturing through participation in various processes, which enable the student to put the acquired knowledge and skills to use. This is precisely what I was talking about in the context of professional management.

Your success, your ability will have much more far reaching effects than many other professions will have the opportunity to achieve. Our sages believed that education has three pursuits — satyam, truth; shivam, wholesomeness; and sundaram, beauty. The last component gets missed out in so many of our activities, and to that extent our lives are rendered poorer. Not to offer excellent working conditions in factories and offices on grounds of economy and nil priority is to stand in the way of

achieving progress in the country, because a work force which lives in poor environments and has no conception of the standards of quality in the world outside will never respond to a drive for perfection in workmanship unless they work with efficient designs, simple in their element and in an atmosphere where a defect or a wrong process spontaneously strikes a discordant note. It will be difficult to put in the mind of a worker the urge to improve his own standard of living to create a cleaner and healthier life for his own wife and children, unless he is made used to the standards of such environment where he spends the best part of his daily life.

I come from Calcutta and must here cite the now well-established example of our Metro railway — the most important demonstration we have in India of industrial design correctly understood as systems design of the human-made environment. Its success in a seemingly apathetic city demonstrates that such 'designed' environments can speak a language that ordinarily people understand, respond to and benefit from. We need to replicate countless 'Metro' successes in every walk of life in India. That single example should give us the heart to believe that we can succeed against seemingly insurmountable odds and make us look once again at our dreams and the projects we have abandoned in the past for imagined lack of support.

Here in this context the NID's objective that a designer's education must create within him a concern for the quality of his physical environment and its relevance to human needs is so significant. If the graduates coming out of this Institute in ever increasing numbers can produce ripple effects in their societies of a pursuit of functional effectiveness and beauty, the quality of national life will benefit immensely. The great tragedy with

educated people often is that they know individual items thoroughly but fail to see their interconnection in relevant situations and bring their knowledge into effective play under applied circumstances. Designing or management both depends for its success on seeing the interconnection between apparently disparate subjects. The educated mind should be aware of ever present possibilities and look for opportunities to bring them into effective play even if most of us do not attain that crucial ability that Arthur Koestler so brilliantly wrote about 'of being able to see in the fall of an apple not the ripeness of the fruit but the movement of the moon.'

Our mythology tells us the disastrous story of Kach and Devayani the repetition of which one sadly sees in so many directions. Kach was cursed by Davayani, his jilted lover, so that the great knowledge of resuscitation and reinvigoration of life that Kach had been taught by her father — the guru on the demons — at her instance, could only be taught by Kach but he would never succeed in applying that knowledge himself. One sincerely hopes that the comprehensive training you receive here will not suffer that fate — alluring, disappointed, and enraged Devayanis who may cross your path notwithstanding.

It is also good to remember that the pursuit for excellence has to be unremitting, because a single lapse may wipe out many beneficial points. Hence the need to be aware of the farreaching effects of our actions. Every factory manager in India complains of transparently false medical certificates being presented to regularise leaves of absence. The actions of those who issue such certificates are highly treasonable, not so much because they act against norms of morality, but every time a doctor uses his professional degree to sign a palpably false state-

ment for the benefit of a not so educated man, he tarnishes the purpose of education indirectly in the eyes of the certified and sets the country firmly back into a morass of stagnation.

Now that our economy is going to be opened up, new challenges will come before us in all aspects -very much so in your areas of specialisation. When we come face to face with competition from established products of international standing, we will perforce have to analyse, adapt, and even copy. But in doing this we must remember our distinctive imperatives, strengths and weakness, and reflect them in a truly modern sense after a deliberate analysis of the options available — even copying, as I have said, if it serves a purpose, and if it emerges after analysis of options as the best course before us, must be a part of the plan so long as we continue to adapt and improve that copied design. In the early Buddha sculptures of the Wei dynasty in China in Tientsin, Buddha has distinctly Aryan features presumably as an alien God imported by Indian missionaries. Only when Buddhism had become indigenised in China did Buddha's features in later sculptures turn Mongolian.

I am not really qualified to speak on the subject but I should imagine that India today can be a dream house of the trained design specialist. You are at the momentous juncture of history where you can put in an unbeatable amalgam of a myriad of traditional skills, simple modernised tools, opened windows looking out into the world and letting the world see us, rapid communication and testing facilities and far-reaching marketing, channels none of which a generation previous to yours had the opportunity of using.

Our opportunities in design will come from a defensive as well as an aggressive role. In enlightened self-interest, we have to resist the inroads of foreign consumerism, which will threaten the products of our factories and our crafts, our industries and cultures from the vantage point the developed countries enjoy. If we can meet that challenge by our own genius we will ourselves have the whole world market as our scope because of the trading channels we will have established by then. The possible process of doing this has been so brilliantly outlined in the famous 'Lota' example of the Eames report, with which you are all familiar. If we can put our own manufactured products as well as our traditional, time-tested products under the 'Lota' scan to make them simple, economical and yet fit for the twenty first century; liberalisation of the economy will then reap its fullest benefit.

To make the fullest use of his creative and innovative abilities, the designer needs to interact widely with the world outside his studio. The days of single Edisons working in improvised laboratories are over. Today's inventions come from group activities. It is only through meaningful, multifaceted, two way communication that the full scope of a designer's capability will be put into play and 'bisociative' thinking will produce the right product or service for the right usage. In other words, design activities will need to be 'managed' and the professional manager will find his links with the professional designer. We all know that it is not enough to manufacture a missile. You need a delivery system as well.

In our endeavour to seek an extended reach for our crafts we must not forget the necessity to be discriminatory. This can only be achieved by an interaction between the manager and the designer at a level where each understands the scope and limitation of the other. In the process of looking for increased

## Leading Lights on Design

markets, we must necessarily appreciate up to what limits craft capability can be taken and from where mass production takes over. In other words we have to be discriminatory in our choice of products for globalisation and engage in effective categorisation so that we do not put our talent under undue pressure for the sake of commercial expansion, or lose out markets for mass produced items by placing unrealistic burdens on our craftsmen.

A measure of the success of the Institute and of those whom it is sending out into the world is through the acceptance of the role of the informed, modern professional designer in fashioning the value system of our society to give in this modern world, appropriate respect for our traditional craftsmen in society at large. We are already deeply enveloped in the disaster of losing invaluable hereditary skills, because economic pressures and society's perception of value does not support the continuance of traditional skills, acquired through generations. If a machine operator in an organised industry or a lowly clerk can command ten times the earnings of the weaver of the most exquisite kinkhab or the dokra artist, then these people will, in this day and age, try their best to see that their children become factory operatives or clerks, and precious heritages on which we have prided ourselves for centuries, will die precisely when their scope is becoming global. Here again, interaction between the professional designer and the professional manager must determine appropriate pricing compensation for arts worth preserving, make it possible for production to be achieved at such prices, with ample remuneration for the craftsmen and find them optimum markets. At the root of all this, must be the need for the creation of a social awareness of all the dimensions of the problem, and I do hope this Institute and its products is the focal

point for the work to create such all round consciousness.

Having come here, I have been tempted to make a suggestion, which I make with the best intentions possible. It is not something, which I have thought of earlier but it is only after I came here that it struck me that the point might be made, with some benefit.

This is the first time I am visiting your Institute and I am deeply impressed by the quality of the work being done, the innovativeness, the functional adequacy and the commitment of the faculty and students. I ask myself why I have seen no impact of its activities or signs of its existence in eastern India, which is still the home of highly skilled metal workers and machine operators in and around Calcutta. The entire eastern region abounds with craftsmen working in textiles, leather, wood, clay and metals, who for centuries have been famous. It may be that the politics of those states, and those governments' apathy, turned the Institute away in the past. But then their support is not an indispensable part in the marketing of modern design work. Unlike many other cities of India, to the Calcutta public at least, you will not have to begin by selling the importance of a design specialist. Why should the design talent which the eastern region contributes to the NID, as I can see from its composition of students, be lost to other areas of India for lack of utilisation in their own home areas? If the effectiveness of what I have been saying about the association of professional management with the professional designer has to be demonstrated, I do believe the NID could play a very active part in developing mutually beneficial linkages with major institutions like the Indian Institute of Technology at Kharagpur, with Viswa Bharati and with some of the newer universities like Jadavpur,

which are not hidebound by old practices. The mere holding of the most brilliant diploma show I saw this morning, if it is taken to Calcutta, or Viswa Bharati or Bhubaneswar, could become the forerunner of the continuous marketing of modern design, in eastern India. I congratulate those who produced such an excellent show. I am sure one could help in identifying individual groups and organisations in the eastern region, who can act as sort of 'friends of NID' and list design challenges and opportunities in Bengal, Orissa, Assam, the northeastern states and Bihar, both in the industrial handicrafts sector. The suggestion merits a close look by a national institution like the NID.

There is just one more point I would like to touch upon. We have been blessed in this country quite generously with great visionary leaders, but their life's works have suffered in continuity after their departure. We understand leadership but we need to instill qualities of efficient 'followership' to continue the essential message of those leaders without losing themselves into crass mediocrity through petty jealousies, nepotism and blind adulation of the hero, rather than that what he stood for. I say this with particular reference to your discipline. I have had close ties with Santiniketan all my life. Viswa Bharati under Rabindranath Tagore with its windows right open on the world, accepting the best from other countries and synthesising on a firm Indian base represented one of history's greatest successes of ushering in true modernity, in a traditional society. It truly lived up to its motto. Through village extension work, one saw the foundation of the history of modern industry design in a truly Indian context, touching every aspect of rural life and bringing back to village craftsmen through market research the new designs that urban people of taste, would accept for

### Arabinda Ray

textiles, leather goods, pottery, woodwork — and providing simple modern tools to craftsmen to improve their productivity. Today, that work continues only in name — clinging to those half-denture old designs with the lame excuse that a change would mean dishonour to the founder who, had he been alive, would have doubtless left his own work far behind. Our intellectual poverty can be such that we rate great men only through the work they did and not the ideas, thought processes and circumstances under which the work was produced — which they themselves would have constantly updated in altered social and global scenarios.

We obviously need to institutionalise our activities professionally so that continuous updating may be done. This must remain a big task before organisations like the NID.

But we are not going to be successful in anything if we cannot bring beauty and order into our environments — human and material. In concentrating on your skills, in their meaningful applications and constant development, and in generating multidisciplinary group activity, please do not forget your profound interdependence on your environments.

Let the aesthetics of the campus from which you are emerging today, be replicated in the spheres of your own future occupations.





"WHILE I MENTION TO YOU ABOUT YOUR ROLE AS A TECHNOCRAT, YOUR ROLE AS A DESIGNER, I MUST ALSO REPEAT AND EMPHASISE ONCE AGAIN, THAT YOU HAVE A BIG ROLE TO PLAY IN MAKING THIS COUNTRY LIVABLE AND TO MAINTAIN ITS FABRIC OF UNITY. THE COUNTRY HAS GIVEN YOU A LOT. THE PEOPLE'S SACRIFICES HAVE GONE INTO YOUR MAKING; YOUR PARENTS' DREAMS HAVE GONE INTO YOU, YOUR TEACHERS' EFFORTS HAVE GONE INTO YOU. THE PRAISE WHICH YOU HAVE RECEIVED TODAY, IS THE CULMINATION OF ALL THOSE PARTICULAR THINGS. BUT THEN AS AN INDIAN ALSO YOU ALSO HAVE A TASK TO PERFORM. AND A VERY IMPORTANT TASK, WHICH YOU HAVE TO PERFORM, IS TO KEEP THE FABRIC OF THIS COUNTRY UNITED."

— Shri Abid Hussain

Become a Successful Indian

Tonourable Chairman of the Council, distinguished Director, members of the council, members of the Faculty, young Graduates, students and dear friends,

I must first of all thank ShriSharada Prasad and Shri Vikas Satwalekar for asking me to be here this evening. I deem it a great privilege to be here today to deliver the Convocation Address of this great Institute. Your institute has been there, not for long. Three decades are just nothing in the life of an institution. But it is fact that in these three decades you have made a mark. You have broken ground and set a power, which was unknown in this country for long. There were skills; there were the manners of designs. There are many beautiful things, which have been done in this country. But the way, in which a scientific course has been designed to prepare you for a new generation of ideas, to prepare you for new challenges is certainly new. And I must say that your predecessors who have passed from this particular institute have earned a good name and have brought a good name to this Institute.

May I also take this opportunity to congratulate you, young graduates who, after hard work and disciplined behaviour have completed your course. I lay emphasis on hard work and disciplined behaviour because those are the two intangibles, which ultimately would shape your life. There are many ways in which examinations could be passed. Well, your system of examination is different, but you know that passing of examinations could be an art and one could get the degrees and amass many certificates. But ultimately the thing, which makes you, is the work which you have put in with dedication, design, vision and ambition. It is those things, which ultimately make for the

character and for destiny. And I am sure that these particular qualities which you have inherited from this institution and which you have built in you and had added value to you, you would nurture them and keep them in mind. The men who have achieved things in life are people who have indeed worked very hard. It's not that at their birth they were touched by a radiant light or by a divine spirit, and they became great.

There were the people who worked hard and loved the work, which they did. I am sure that the affection and love, the emotion, which you feel towards your friends and colleagues, would also be transferred in favour of the jobs you will be asked to do. However little, however small a job may be, when you put your love in it, when you put your dream in it, when you put a vision into it becomes divine and it changes the whole façade of life and changes the quality of life. You are now entering into a new phase of life.

From tomorrow, begins a new struggle. I am not saying just in terms of getting a job, which perhaps some of you might have already got. But the testing time, the time when you have got to make out as to what this job, which is being assigned to you, is like. How life is going to be different from the sheltered life which you led here. How you have to work with your boss, with your colleagues with your clients and the people around. It is that which will be testing you all the time and that is why it is generally said that your life may be as long as you may wish for, but there was the most testing time is the time between leaving of the school or the college or the institute and joining hands with life itself. You will be launching your boats on the stream of time, the time over which you have no control, the time to which you have not given birth. Yet, at the same time,

the most precious thing in life is time and how you use it. I am sure you will be able to steer clear of difficulties in this stream of life and would reach the destiny and the destination which you have worked out for yourself. Tomorrow you will be mixing your memories with your desires. You would be stirring the roots of your life and also facing, or enjoying, the showers of spring rain. Tomorrow begins a beautiful day for you, but a testing day, in which you have got to re-impart those dreams and make them successful and great. As your Chairman has said you are entering a period of life, or that stage of history which is becoming a much more competitive than your predecessors had witnessed or had to encounter. Your challenges are going to be global; your challengers are going to be global. You will not be able to erect new walls to protect yourselves from them outside influences and effects. You cannot escape the world today. But try to see as your Chairman said, while quoting Mahatma Gandhi, to protect what is so precious in your culture, so precious that it gives you an identity and which makes you Indian. But then, you cannot escape, as I said, these big challenges and big rivals all over.

I know there was a time when your predecessors and the people of my generation had a much easier time. Ours was a limited scope but, at the same time, a limited competition that we had to go through. In fact, there were times, and there were places in India like the place from where I come, Hyderabad, where having a good connection with somebody, or coming from certain family or a community were good enough to give you a big lift in life. In fact, in Hyderabad there used to be a saying that there is no law greater than son-in-law. But then that particular period is over now. You may be the son-in-law and

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the son of any person, however great and well placed he may be today, but you will be tested on your own merits and your own work. You have but to ensure that the work which you are going to do, will be such where you will be able to out-beat and overtake others in the run, and this is where I think our test lies. Then there are some people who are afraid of competition. There are some people who do not wish to get into this particular competitive world. But they are forgetting that the world they had known is dead and gone. It cannot be stopped at all.

The great Berlin wall has collapsed and is no longer there. The Iron Curtain, which Russia had built, had disappeared. The distinctions or the differences, which were marked on the back of geography by the rivers and the hills and the mountains, mean nothing today. The massive movement of capital which is taking place, the way in which the technologies are bursting, the way in which the magic of the computer is in operation, the way in which instant information is available to people — these are making the world a different place in which you will have to operate. The assumptions of yesterday were based on Cold War calculations, which have gone. The demise of the Soviet Union, the weakening of the Communist ideology and, bringing together the people of the world into a small village-type environment, is the environment which you have got to work. And I am confident that we will succeed in this particular competition. We have done it. If you look and see what the Indians have done in almost all the fields where they have entered in the world arena, we have really distinguished ourselves. Go to Europe, go to America, go to any part of the world where you have Indian working and you will find that he has distinguished himself marvellously.

For two years I was in America and if there was one thing which could swell the heart, it was the success of our Indian boys and girls over there. Go to any University or to a hospital or to a dispensary or to a laboratory, you will find Indians there. Not that the other immigrants have not come to America, but the way in which our people have done the work is marvellous. You take even our labour. The militancy might be there and we might be sometimes annoyed with the some of the trade union practices. But look at the way that they work, even the most inhospitable environment, that of the Gulf and Saudi Arabia. Look at the way; in spite of certain prejudices in certain parts of the world, an Indian is respected and owned up. That clearly shows that we have got some merit in us, some determination in us, to meet the challenges inside the house or outside and achieve success. It is said that some people feel that we should not take part in this competition and try to withdraw from the new world order which is emerging. These are not the tigers whom we expect to leap forward and set the model for the rest of India

I still remember, when I was returning from America, I stopped in London for two days. And one of the editors of the Economist magazine told me, "Shri Hussain I heard you this evening and I definitely feel that Indians are capable of doing great things. And we have put it on the front page by showing the Indian Industrialists as "Tigers in the Cage." He said, "Open the door of the particular cage and you will see that the tiger will be leaping forward and achieving a marvellous success for the country." I cautioned him, and I told him, that my tigers are not these aging industrialists and others. Some of them are bright and great, no doubt. But most of them have been

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brought up under protectionism to such an extent that they are afraid of coming out. I said, don't you know that Manmohan Singh has opened the door of this particular cage, but our tigers are refusing to come out? Not only are these tigers not coming out of the cage they are inviting tigers from outside also to get into the cage, saying that have belief and faith in us. At 11 o'clock you will get the leg of mutton, so you don't have to go out. Don't treat them as the examples; don't take their lessons as the lessons which will dishearten your hearts. Look at the small man who has come up in this particular country. Look at the middle class which has come up in this country. Who are these two hundred million people who make the middle class in this country? And 200 million is not an ordinary figure. It is the total population of England and France, put together. How can you ever ignore such a big class? And who are these people? They are the children of very small men. Very ordinary men. Somebody's father is la teacher somewhere. Somebody's father is a small businessman. Somebody's father is a tailor, or a retired, small bureaucrat. Yet at the same time these are the men who are coming with determination in this particular country to achieve something. Most of you I hope belong to that particular class of courageous men who are prepared to break away from the shackles of what you called the class distinctions which we have and are able to move ahead. How great it is to find today, a driver's son refusing to become a driver, a laundry woman's daughter not prepared to take up the job her mother was doing. They want to improve their lot. They want to move forward. They want to have the best of life and improve their standards of living. And therefore, you have a new class of people today, in this country, whom you have got to serve. They

are opening up new markets. They are extending the possibilities of your intervention in the life style. They are looking to you and people like you to make things better and beautiful for them. Yes, we have entered into an era of technology. Yes, We have entered into an era where we can go into in space, and beyond space. But there are many problems on this earth we have forgotten and neglected. In India, it is this particular class of the people who needed to be helped. And for you the high technology and low technology is meaningless.

What is important is how you improve the technology, the design, the working of the small things, which will give pleasure, and at the same time, utility to the people. How do you make a lota look more beautiful and more charming and more useful? How do you make a bench in the park appear to be more attractive than otherwise? How do you make the products which are what you call "environmentally satisfactory and friendly." You have to do it. Technology, design, perfection in these particular areas, need not be confined only to the nuclear items. Today, the biogas to my mind is as important as a nuclear device. To me the ordinary man's rickshaw is as important as, I would say, TATA's car or the Birla's Ambassador or Maruti. You have got in you now a certain talent and experience which you have got to use for the development of those particular items which make meaning and sense to the people of this country. Do not cut yourselves away from the people of this country. Get the jobs whatever you are getting them. I am not suggesting that you should become sannyasis. What is important is that whatever job you get, try to link it to life around you, try to do it in the best possible way and make it flower. You will make your pastures greener. Do it and you will see that you will be

able to achieve it. We have a saying that there are certain technologies which are invented in America but commercialised in Japan. And some of us say that it may have been invented in America, and may have been commercialised in Japan, but it has been thought of in India.

True, our thinking part is great. True, the power of conceptualisation is there in us. But where we have been failing is to convert it into a practical thing. Make a practical tool work in a practical manner, to produce a particular product, which has a practical sense for the poor people. And I am confident of it that some of you at least would be able to keep your mind and heart with those people who make India. It is not the rich few, not that I am against them. It is not the few industrialists, not that I am opposed to them. On the contrary I feel that they have got a big role to play, which they should assume and carry out. But it is the millions and millions of people of India, the inheritors of the culture of India, the people who make the civilisation of this particular country, we have neglected them too much. Take care of them, for otherwise this country might become a volcano on which you and I are sitting and it will explode one day.

While I mention to you about your role as a technocrat, your role as a designer, I must also repeat and emphasise once again, that you have a big role to play in making this country livable and to maintain its fabric of unity. The country has given you a lot. The people's sacrifices have gone into your making; your parents' dreams have gone into you, your teachers' efforts have gone into you. The praise which you have received today, is the culmination of all those particular things. But then as an Indian you also have a task to perform. And a very important task, which you have to perform, is to keep the fabric of this

country united. To keep this country united, stop it from being splintered and divided. We have had too many partitions. We have had too many divisions in the society, we have too may hatreds, which we have nurtured, consciously and unconsciously. We have got to put an end to it. Diversity, tolerance of diversity, celebration of diversity that is the essence of Indian civilisation. India has been a pluralistic society. There are many pluralistic societies, but we are unique in the particular sense, that we have differences of language, differences of religion, differences of ethnicity, differences of culture, the way of life, the dance, drama, and history. And yet we have remained united and that has kept our country going.

Please do see to it, that we do not deny a space to the development of diversity in this country. But the diversity should again be mixed in a singleness of being an Indian. That is what we have got to keep in mind. Ours is a country, which is beautiful like a rainbow. I get reminded of what I had read as a child: that my heart leaps up when I behold the rainbow in the sky. And when I see the rainbow, I think of my country and its culture and its civilisation, the different colours so beautifully kept, not merged and destroyed into one colour. But all the colours in the shades are maintained, and that is India. India is like a beautiful bouquet of flowers, in which the colours of the flowers are different, their fragrances are different, their appearances are different, but you combine them together and present them as a bouquet, how beautiful it looks. India is like an orchestra playing symphony of a musician like Mozart or Beethoven or others, where hundreds of musical instruments playing separate notes are harmonised together to create a melody, that is India. Retain and maintain that particular under-

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standing and the dream of India. I know that today you feel a sense of distress and are under stress also when you find that people of your generation have run amuck. If communalism or casteism existed in the illiterate part of our society, if it existed only where poverty resides, if it were only where prejudices are deeper, then one would not mind. But the tragedy of the present situation is that you and I, educated men, have become victims of that. You and I who have been given so much of help by the society have become an antidote to society and have started damaging our own base. It is extremely necessary for a modern man to have a modern mind. You cannot be a modern man with a mediaeval type of mind. You cannot be one in this particular country and think of casteism. I understand and I believe that people who have been denied their rights for generations have got to be lifted up. They have got to be preferred; they have got to be given certain preferences. But if those particular preferences are going to become walls between the different parts of the society, the communities and the castes, then we are again leading ourselves into another partition. We are leading ourselves again into a blood bath. We are leading ourselves into a narrow lane, out which we will never be able to come out to see the world which is so bright and brilliant and wise. You have got that role to play. I humbly request that each one of you wherever you are placed, wherever you may go, each one of you, whatever profession you may adopt, has to keep this thing in mind that we have got to keep India going. Because believe me, if India is great then you are great.

You had seen that in Britain, even ordinary ministers and prime ministers there, even the soldiers used to look mighty and powerful, because there was a time when Britain was

ruling the waves and was a big country. Today, when the decadence settles down in a society, then the breakup of a society takes place. Today in half humour some people say that Mr. Major the Prime Minister of the UK has become Mr. Minor, not because he is in any way inferior to any of his predecessors but because the UK has started losing that particular position and status that it enjoyed at one time.

But you have got to keep in mind that if you have got to be great, India has got to be great. And if India has got to be great, you have got to take care not only of your professional responsibility, but also your civic responsibility. And where you have got responsibilities, you have got certain duties also to perform. It is a sad thing again, that in this country where so much has been given to the class to which you and I belong, we have not learned the art of returning back to the society what we have received. We have been asking and demanding rights but we are shying away from doing our duties. And the duties are not the big ones, but only the ordinary duty of a citizen to protect the special property of the nation. The outlook of a citizen is to ensure and help India to think well. To be assigned a job by itself is nothing, but what you make of the job is important and great. I am confident that you, the new graduates coming out of this particular Institute, will set an example. You will do something, which will make us proud of you, which will make the Institute proud of you, which will make India proud of you. This is the great task you have got to do; because I am sure in professional life you will be competitive. You will be able to get jobs. You will be able to achieve many things. But the harder job, is of bringing the hearts of Indians together — making the Indians live together, and making it very clear whatever you go

that we are united, we are one. We belong to India and our future is linked with the greatness of India. I wish you all success in your careers. I wish you to become a successful Indian.





"TO CREATE SOMETHING THAT IS BEAUTIFUL REQUIRES VERY LITTLE BY WAY OF ADDITIONAL MATERIAL RESOURCES. TRUTH IS ABOUT RELEVANCE, ABOUT ENDS – AND NOT ABOUT MEANS AT ALL. THE HIGHEST STANDARDS OF EXCELLENCE IN ANY PROFESSION OF ACTIVITY ARE REACHED WHEN ALL THE THREE CRITERIA OF TRUTH, BEAUTY AND GOODNESS ARE SATISFIED TOGETHER."

# Relevance of Design in Economic Development

A condolence meeting was held as a mark of respect to the previous Prime Minister of India, Shri Morarji Desai, who had passed away. Dr. IG Patel's speech was circulated among those gathered for the Convocation.

rof. Satwalekar, my Colleagues on the Governing Council, the Staff and Students of the Institute — above all the graduating students and their parents and guardians, distinguished guests, ladies and gentlemen,

It is indeed a great pleasure to be at the Institute this evening on this happy occasion. Convocations are rather complex events in India, altogether free from some internal contradictions. In one sense, they are occasions for celebration — that the days of hard work, often boring lectures and somewhat meaningless examinations are over, with a certain sense of achievement. They are also occasions for looking back with nostalgia and gratitude. Gratitude to all those — teachers, friends and parents — who have made this day possible. Nostalgia because the days of innocence and self-indulgence are over. But there is also a certain sense of anxiety, which invades the convocation spirit. What begins after the Convocation is something rather unknown which brings with it its own apprehensions. One is vaguely aware of being on the threshold of a new responsibility, a new accountability. In this sense, convocation is very much like any other rite of passage — a ritual which is a celebration, a regret, an eager anticipation, a transition from something wholly irretrievable to something at least partly inevitable.

For those, like myself, who are called upon to give a Convocation address also, the occasion presents a dilemma. You are expected to deliver a not-so-short speech, giving advice to the young graduates, which might equip them better for what

is yet to come. But the young are allergic to advice — at least when they are happy and apprehensive and confused at the same time. And in any case, while the old are prone to giving advice, the wisdom of the old is about as illusory as the proverbial wisdom of the East. Both, at best, are of the after the event variety and carry little conviction for that very reason. The young are rightly skeptical about all that: and while they may listen politely and patiently, their minds are somewhere else. What is a poor hapless convocation preacher like myself supposed to do?

I thought I should take a chance and try and tell you how your profession — what you may have learnt at the NID could be useful in the economic development of our country. Not that I have any credentials to speak of Design; and even as regards economics, as someone once rightly said, I, at best was an economist. About the only thing I could draw at school was a mango, and I used to feel very proud when I could embellish my creations with a stem and two leaves. But like every layman, while I may not know how to draw or design, I have some idea of what a good design should be and what it is good to design. Like so many other important things like love, which we do not fully understand or comprehend but recognise when we see it and even experience it within ourselves, a sense of design is an integral part of the human make up. And even economics nowadays is everyone's domain. After all, who has not heard these days of liberalisation and globalisation and how wondrous or disastrous it is or has been? So, with some trepidation, I shall take the plunge.

A design, worth the name, as I see it, should have three essential features. It should be pleasing, good to look at and

appeal to our aesthetic sense. This is I think is self-evident. It must be, in the second place, functional in more senses than one. It must serve efficiently the purpose for which the object or activity is designed. A teapot must not just be attractive. It must pour the tea at an even and appropriate pace —and perhaps even keep the tea hot. The purpose must also be served in a cost-effective manner and this must include not just a low cost to the producer and the consumer but also little or no indirect costs in terms of damages to the environment and the like. Good designers are often unmindful of cost — as good engineers are apt to design irrigation dams without regard to costs and benefits. But a white elephant is not a good design. And nowadays, materials or processes which are not environment-friendly are rightly regarded as dysfunctional or not cost-effective.

But to argue only about what is a good design leaves unanswered an important question. What is worth designing? What is it that is good to design? Is it only those things, which come within the purview of money and markets, or would it include also things of social and intangible but real value? A good design for a city slum might invoke a smile, as some contradiction in terms. But a good design for low-cost urban settlements sounds good and professional — and both the expressions mean the same thing.

What I am trying to say is really a repetition of the old wisdom of truth, goodness and beauty Satyam, Shivam, Sundaram. We all know instinctively what is Sundar or beautiful. The good — Shivam — is a practical or functional concept. That which works well and serves efficiently some useful purpose is good, Shivam. But what is true or Satyam? At least one

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meaning of what is true is that it is relevant to the needs and aspirations of human beings — if you like, relevant to the needs and aspirations of the poorest and most deprived sections of society. As Gandhiji would have it Truth thus is about relevance or values, goodness about practicability and beauty — well, you know what it is all about. I would define beauty or Sundaram as a way of adding to human happiness without or virtually without the use of material resources. Shivam requires largely material resources. To create something that is beautiful requires very little by way of additional material resources. Truth is about relevance, about ends — and not about means at all. The highest standards of excellence in any profession of activity are reached when all the three criteria of truth, beauty and goodness are satisfied together.

Let me now turn to economics. There are many ways of looking at our economic problem. I prefer to think of it primarily in terms of increasing productivity and alleviating poverty. The only way ultimately to increase our national wealth and income or our standards of living is to increase our productivity — the productivity of all the resources we have of land, labour, capital and enterprise. How to increase productivity steadily and significantly from year to year is a complex matter — it requires not just certain economic policies and priorities, but a favourable polity, social and cultural attitudes which promote habits of hard work, frugality and a spirit of corporation rather than confrontation and an intelligent adaptation of new techniques as also a favourable international environment. But however complex the phenomenon, it is better to focus on this central task: increase the productivity of such resources as we have.

A word is perhaps necessary why I regard poverty alleviation as a distinct problem. It is not because I believe that growth does not trickle down, particularly to the poor. Growth does trickle — down and up and sideways. And even the poor as a class benefit by it. After all, increasing the productivity of all includes increasing the productivity of the poor also — of the small farmer, of the landless, of the slum dweller as well as of others. And over-all growth, wherever it starts, does percolate and increase opportunities for everyone. In this sense, 'trickle down' is a misleading metaphor. It is nobody's idea of development that it must begin only at the top and then percolate down to the poorest. On the contrary, 'Antyodaya' or 'Unto the Last' is not just more equitable, it is also good economics.

The reasons for emphasising poverty alleviation as a distinct problem are two. The first is that it is not easy to increase the productivity of the very poor in the short-run without some deliberate act of policy. Even a small farmer can be made to earn more by teaching him better methods, giving him better seeds and the like. But for a landless labourer or an urban unemployed slum dweller, there are no easy market-related solutions. We have to increase his productivity by giving him access to free health facilities, by starting employment schemes or by teaching him a new trade and setting him up in some small trade. All this takes time and much public and voluntary action. Educating him or his children is an even longer route. Even with an extensive safety net, several will remain submerged in poverty.

The other factor that dictates separate attention to poverty alleviation is that even if some poor people become a little better the ranks of the unskilled, unresourced and poor will grow for quite sometime as a result of population growth as

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well as technological improvements. We do not like to admit that our high rate of population growth is a major factor in our poverty — and this factor will remain operative for many years. While technology can be made unskilled-labour-friendly, there are limits to that; and technological unemployment is a universal phenomenon — now, and in history. To say that in the long run, growth based on superior technology will produce more jobs is no comfort to those unemployed today. The poor thus will be with us for a long time; and if we cannot eliminate poverty, we have at least to make it tolerable by conscious effort.

You may have noticed that I have spoken only of growth and poverty alleviation — not, as it often customary, of growth and equity of equality. I am afraid inequality is a fact of life; and inequity is often for social and political reasons rather than for economic reasons. As far as economics is concerned, the only equity or equality we can reasonably hope for is that which results from everyone having enough to preserve his or her dignity by access to education, health and work. The rest of the agenda for economic equity or equality in the sense of increasingly narrowing the differences between the rich and the poor is not practical except through total revolutions which breed other forms of inequity. In time, with steady growth, economic inequalities do get narrowed a little - not a lot. But for us in India, for many years to come, there would be many who would remain more or less poor and at the subsistence level while others including the very rich, will forge ahead. I would, therefore, urge that while doing all we can to reduce poverty, we should at the same time do everything that we can to make the poverty that remains as bearable and dignified as possible.

A good student of design can assist in both these tasks —

of increasing productivity and alleviating poverty. We talk a great deal about openness to the rest of the world, of globalisation, of increasing our exports and imports. The reasons why it is important to increase exports are two. It increases our export that at which we are comparatively good or which requires resources which we have in plenty and import that for which we lack resources or at which we are not so good. Exports, in other words, add value and remove constraints. But this will happen only if we also progressively lift the restrictions on imports. To export without importing would be the height of folly. To hoard gold or foreign exchange reserves but live in penury is miserliness incarnate. It would amount to gifting the results of our hard work to others much richer than us. Mainstream economics has left such mercantilist folly far behind.

Trying to export more raises productivity in another way. By forcing us to compete with many countries and over a wide front, it compels us to be on our best, to sharpen our wits and efforts and thus to improve our productivity and competitiveness constantly and over an increasing range. That too means faster growth and higher standards of living.

An ability to design well is a vital ingredient in being able to compete effectively in world markets. Packaging, aesthetic appeal, are as important as cost or price advantage. In fact, our objective should not be to sell the cheapest product, but to sell where value added is the most. The rest of the world is much richer than we are — the price advantage means very little to them. They may buy our cheaper denim cloth. But the market for cheap garments is very limited. The market for well-designed garments with attractive combination of fabrics and

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styles is virtually unlimited; and even if we get a small share of it, it brings much higher returns in terms of value. This is where good designers, who at least in textiles and garments are often women, score — witness the fact that almost every mill-owner nowadays has one female member in the family who concentrates on export of fashion garments.

It is a mistake to think that our main comparative advantage is the low wages of our unskilled labour. Our unskilled labour does command wages which are low. But it is also less efficient or productive compared to better-fed and better-educated unskilled labour elsewhere. What the economists call an efficiency wage is not really all that low for unskilled labour in India. Our greatest comparative advantage, on the one hand, is rather inexpensive skilled labour, i.e. our engineers, computer scientists, management experts and the like. The other great comparative advantage we have is low-cost labour with a sound aesthetic sense and the dexterity of generations of traditions as craftsmen. It is this latter category who are often very poor or the not-so-rich who cannot afford good carpets or chandeliers. Good designers with eyes attuned to foreign tastes can not only make these very disadvantaged people better off, but make the economy as a whole more productive as a result of a stronger balance of payments. And remember, we have plenty of such impoverished people. But what they produce is rich and beautiful and expensive; and it can be exported with much value added for the country as a whole. Good designers, among others, are needed to organise such craftsmen and link them with the global market. What we have here is growth which uses one of our abundant resources, benefits some of the poorest sections of society (including women as well as men),

and which assists at the same time the further growth of the economy most by export of high value goods.

I venture to think NID students themselves could become a higher class of craftsmen-entrepreneurs. They know design, and are well educated and can easily understand markets, accounts and tastes. India is one of the few countries with centuries of tradition of popular arts and craftsmanship in all materials and objects. The only parallel in the industrialised world that I can think of is Italy, which has a similar history. Have you ever analysed how much Italy earns abroad by its exports of welldesigned things — garments leather goods, China, crystals you name it, they have it. And much of it is the product of small decentralised outlets — which in these days of computers and electric tools and gadgets can be run by small craftsman entrepreneurs in small sheds which have access to information gathered from all over the world. Scandinavia's exports are also to a great extent design-oriented. And remember, these are high value exports produced, in our case, by poor craftsmen for whom there are very few alternative avenues at home of improving earnings. Even if their poverty is not much reduced, it is somewhat alleviated because what is provided is remunerative work which has an aesthetic appeal and which increases one's sense of dignity and self-respect. The fact that we also have a small but growing domestic market for such handcrafted artistic luxuries only heightens the importance of what I am arguing.

I have focused on exports of craft-based well-designed products produced by the relatively poor as this aspect is often neglected. But design is important and crucial even in the export of machine-made products like bicycles or scooters or computers. For that matter, design is important for essentially domestic activities catering to domestic demand. While exports are vital, as I have already indicated, they can at best account for 15 to 20 percent of national products as against the present only 6 to 7 percent. The bulk of the production has to be for meeting domestic demand, and we have to increase productivity all round, and not just in export activity. A good design is relevant as much for non-traded sectors as it is for the externally traded sector. This is evident when we speak of infrastructure like power, transport, irrigation and the like which are not for export but are vital. That is why there is such a great demand for good designers from industry at home and from multinationals all over the world.

But increasing productivity is equally important for the women who carry loads of utensils for sale on their head or for the lariwalas who provide food and drinks at every street corner. They are not in the market seeking advice from consultants on good design for their utensils or for their larries or stoves. But a good designer can play a role here too. What is good to look at, what is more functional and cost effective and what attracts customers or is relevant to them is also remunerative — and at this level it reduces poverty by increasing productivity in some intangible and tangible ways for some of the poorest people. Here is where NID graduates can interact with social workers and voluntary organisations in doing something good and useful which also presents a new challenge in the application of what they have learnt to generally neglected sectors. Here you have to take the initiative without regard to private gain in the spirit of voluntary social work.

A good design is relevant not only to goods and services and

work places and other market-related activities. It has relevance also to places where we live — to our homes, our neighbourhoods, to our townships, to our public parks and monuments and museums, to our classrooms and to all places of entertainment and instruction where we gather together. To add a touch of beauty and greater functional efficiency to all these can be a concern of design artists as much as it can be of engineers and architects and town-planners. The fact that design artists need the cooperation of specialists in other disciplines to be effective in such an essentially public and multidisciplinary enterprise does not make them less valuable than others. In fact cooperation among people drawn from different disciplines or professions is essential almost everywhere; and the ability to cooperate and interact with others is an essential attribute of all professionals. I am sure your teachers at NID have emphasised this human or human relations aspect of your success both personally and professionally.

Community or social life apart, a sense of good design is essential also in individual life, particularly for the very poor for whom it is very difficult otherwise to retain any semblance of joyousness or dignity or self-esteem. That is the foundation of popular art and culture throughout ages everywhere. Even today, an adivasi girl proudly wears a flower in her hair — the pity is that the flower nowadays is often an artificial one. The poorest women walk with the greatest grace and dignity — they wear carefully chosen ornaments and colourful costumes. The meanest of mud huts has a pleasing design and something beautiful painted or plastered on it. These overtures to good design and beauty without compromising with functional efficiency cost little in money or materials, and much in loving labour for

## Leading Lights on Design

which there is always time. Without that, there would be little pride or joy in the lives of the poor. Here is a time-tested and beautiful way of making the lives of the poor. Here is a time-tested and beautiful way of making poverty tolerable.

Unfortunately, this art is dying with urbanisation, marketisation and growth of numbers. Sensitive NID graduates can do much to retain and sustain and strengthen this tradition. It has relevance also to lower-middle class families in our ugly urban conglomerations. Where have the sathias and the alpanas and the carved lintels gone? The beautiful designs in grains of different colours at religious and marriage ceremonies are now replaced by garish commercial decorations; and women take more pride on such occasions in discordant disco dancing than in creative drawing or stitching.

My main reminder of the contrast between ugly and boisterous prosperity and serene poverty with an aesthetic core came during a visit to Bijnor more than two decades ago. Bijnor is a small town in Western U.P. on the bank of the Ganges with a large influx of refugees from Punjab and Bengal. The two communities live in separate localities and I was asked to visit both to witness the hard work of the Punjabis and the laziness of the Bengalis. This characterisation was largely true and was reflected in the prosperity of the Punjabis and the poverty of the Bengalis. But there was also another side to the story. The Punjabi basti was a hotchpotch of ugly pucca buildings, which had grown here and there without any plan or design; its streets were broad but littered. The Bengali basti had neat mud houses arranged in a beautiful if casual pattern, with alpanas in front and on the walls. I should add that the Bengalis had also saved money to send their children to distant schools and colleges, as 'this life of farming' was not what they were brought up to respect and look forward to. I have not visited Bijnor again. But perhaps the Punjabi basti is still there — bigger and richer, I am sure, but perhaps equally disheveled. The Bengali basti has perhaps disappeared with the parents going to live with their children in distant lands.

Ladies and Gentlemen, and the graduating students, I hope I have said something to convince you that the education and training you have received at the NID can be used for a very satisfying life and career. You can be an individual craftsmandesigner. You can be an entrepreneur that can do much to increase our exports and to give remunerative job opportunities to thousands of our poor craftsmen. If so inclined, you can be employed in big national and multinational firms or set up your talents to improve the design of the means of livelihood of the self-employed in the unorganised sector, to improve our habitat and environment in consort with various social or voluntary organisations; and you can try and ensure that even the poorest in our villages and those confined within narrow walls and dirty streets in our cities can add some colour and joy of creativity to their lives and regain their dignity and self-respect. The choice is yours. The opportunities are many. It is in the best interest of the nation and yourself that you seize them.

I promised you at the outset that I will not give you a sermon. But I seem to be drifting into that role. So let me indulge myself a bit more and make just one appeal to you. Please do all you can to restore communal harmony in this country, particularly between the Hindu majority and our Muslim brothers and sisters. That is absolutely vital not only for our national unity and for preserving and enriching our

heritage of unity in diversity. It is essential for our very sanity and for the survival of our basic humanity and decency.

There is also another reason why I refer to this question here today. Many of the poor craftsmen with rare and valuable skills much in demand in the richer markets of the world are our Muslim brothers and sisters, in this city as elsewhere. Whatever the historical or cultural reasons for that, they are a great national and international asset and represent a rich heritage. You, who are in the business of design and arts and crafts, have a special responsibility to ensure that this vital part of our society is not alienated, isolated and marginalised. You, in your professional capacity, can do much to draw them closer together in the national fabric, drawn them closer together in the glorious adventure that is our special national mission — an adventure to show that the small and poor can be good and beautiful, that a fabric woven from many strands can be stronger and more appealing than any other. That is also task and an opportunity before you.



"YOU NEED A DESIGNER'S MIND TO COME UP WITH THAT OVERALL PERCEPTION THAT GOES BEYOND JUST THE DESIGNING OF A PRODUCT. IN INDIA WE LIVE IN A 'CHALEGA, KYA KAREGA ' CULTURE. OURS IS AN IMMENSE CAPACITY TO ACCEPT AND ADAPT TO PLUNGING STANDARDS, AS IN THE CORRUPTION IN OUR LEADERS, THE FACT OF PROVEN CRIMINALS IN POSITIONS OF AUTHORITY, VOTED THERE BY US IN FREE ELECTIONS. DESIGNERS MUST RESIST BECOMING INFECTED. IT IS NOT ENOUGH FOR US TO REJECT COMPROMISE ONLY IN THE WORLD OF FORM, COLOUR AND LINE."

- Shri Gerson Da Cunha

Towards a Golden balance

am conscious of the honour that it is to be here this evening, I am equally conscious of being ill equipped for the task. I am not a designer in your terms. But I have one advantage. I was associated with the Thapar Review Committee on NID in 1974. Having had a recent opportunity to look through the Report, I was pleasantly surprised to discover that I remembered large portions that I had written.

To this advantage I have added what I call a design idea. I have met and spoken with NID graduates who work as professional designers in the 'wild west' beyond Paldi, and indeed in the wild north and the wild east and the wild south as well. I have put them on video because I thought you would listen to them more seriously than you would to me. Regrettably, time prevents a playback of all whom I met and of all they had to say.

One of them, Prasoon Pandey, came up with a good analogy of the difference between studying in NID and working in the professional world outside it. "When you are in NID," he says you are a batsman practising at the nets. Here the leg spin is leg spin of course and the pace bowling comes quickly off the pitch. But," says Prasoon," In the real world, it is the match. The bowling is out to get you, trying to force you on the back foot.' This evening I hope to go a little bit into what it is like to play total cricket by playing back to you what NID graduates are experiencing. What does it take to be good professional designer today? Although some of you are working already, and many are already outside the Institute, you haven't been out there too long. And so the question is still valid, particularly as the answers you will come from people very like you.

But first a moment of nostalgia. Twenty-one years ago after the Review Committee Report had been written and accepted by the then Ministry of Industrial Development, we all fell in a state of pleased exhaustion. We thought we had come up with the golden balance between the traditionalists, on the one hand, who believed that the best design imbibes cultural traditions and the moderns, on the other hand, who turned Westwards for the concepts and methodologies of design. We also felt that we had done very well with an administrative design for the institution itself.

It was clear to us then, as it is clear to me now, that the NID is a process that produces a particular kind of human being: the designer. I would like to stress the words "human being." There must be more to the designer than just an eye, a hand and a sensibility. There must also be the integrity of being rooted in this land and in our times, the impatient conscience of which Charles Eames spoke, concerned with ultimate national values. Now NID has done extraordinarily well in forming this rather special human, and I am in a position to compare the vision for 1974 with the product of today. This is only in small part due to that original vision which, after all we wrote on pieces of paper. Much more is it tribute to a succession of remarkable Chairpersons, Governing Councils and, above all, faculty and Director, but more of that presently.

Let us cut back to where we were a moment ago. What is the world out there going to be like for the professional designer?

Siddhartha Ghosh: "One thing that can be said, irrespective of Industry, is that it's a very, very competitive world you're going to work in. But I think that graduates going out today are far better equipped educationally than those who went out in previous years. But then it is not only academic qualifications and academic ability that this world demands. This world

demands patience. This world demands people who are open to learning and able to figure out how to make best use of what they have learned over the years. And it calls for a very, very high degree of professional commitment to whatever work they are doing."

Patience, commitment and learning. Your learning must continue now with the workroom as your classroom, those who work with and for you as your teachers. K. Kurian, my colleague in advertising, asked me to remind you all that you should always carry in your pocket a little card with these words. "He may know better." 'He' means your client. You are the bridge between what you have learned here and what you apply over there. It is sense you will never leave NID because the back foot will always be here.

Preeti Vyas Gianetti puts in vividly. "Consider all that NID has given you," she says, "as a deposit account, a corpus on which you can draw for all of your professional life. The interest will become new capital with its own yield which will then become capital anew." But the crucial needs, says Preeti, is for you to come down from floating two feet above ground, the natural condition, according to her of all those leaving NID. She confesses that she was the same. But she came down to earth, as everybody must do, particularly because she experienced new things, needing down-to-earth tackling. Preeti Vyas Gianetti is sixteen years in graphics, advertising design and publishing.

Preeti Vyas Gianetti: "With the arrival of multinationals in India and their needs, the kind of demands being made on design professionals have definitely changed the climate of professionalism. The need is for greater professionalism. In many ways, it is harder to be a good designer in this present climate.

So much is coming in ready-made from outside. We are being asked to adapt rather than to create. This is creating a culture of having to prove ourselves all over again, how good we are?"

As design professionals you must understand what globalisation will require of you. It is the phenomenon that makes every land a potential market or a possible source of raw material, goods and services. Globalisation requires you to create two world standards at home because the world is here.

Now this is exciting and provocative, but there is a down side too, as Somnath Dutta Roy discovered. He was designing a new point-and-shoot camera. Prasoon Pandey speaks of another kind of pressure, which twin reality you must quickly learn to handle.

Somnath Datta Roy: "The clients had a foreign design in mind which acted as a kind of limitation on our creativity. They kept on expecting that our design would follow the stereotype. They why bother to appoint a designer here?"

**Prasoon Pandey:** "You are investing Rs. 7 crore in a whole campaign. The film will cost Rs. 85 lakhs. But you say, 'Give it to me by Thursday.' I care more about your Rs 7 crore than you do. Is three days of my thinking good enough for your Rs 7 crore? So I think a long time before I decide what kind of film to make for you."

We are all moral and impeccable until the pressure starts, have you noticed? That's when something called integrity must come to professional's aid. It gets to work when reason and logic stop. By definition, you cannot argue yourself into integrity. But it is something you will carry out with you as you pass through those NID portals for the last time as students: principles and values. Those are elements in the typical NID

student's make-up and they may be NID's most valuable gifts to you. Don't sell them short.

So, being a design professional today means becoming the best by world standards. But what if a world that is ignorant of design doesn't really care?

Balasubramaniam: "In the process I learned one thing. Educating the client is a major part of your profession. I do it constantly. I tell him, 'Okay, you have done product design. Why don't you do some good packaging? You have done packaging, why don't you use some more graphics? Get a brochure well designed. Do a proper exhibition. Do it this way, not that. I think clients like that. Going beyond the brief is something they enjoy. I too have enjoyed helping the client to go further than what he has and where he is."

Caring, that is the word that must enter your professional vocabulary, if not as a word to attract your clients, then as a word to feel it your heart. Amardeep Behl, twelve years as exhibition designer after his spell in NID, believes that valuing his client is the cardinal factor responsible for success in his work. Valuing the client's business, his needs, his brief and, above all, his budget. Then of course there are the all-important basics of professional functioning.

Shanu Bhatia: "Working as a designer you suddenly realise that you are dependent on so may other things, and the main thing is management. I wish we had leant more about management, how to create PERT charts, things like that. Management comes into focus for every job, every delivery. For schedules to be well managed, you have to coordinate with all your colleagues. Time management, money management, financial management, budgeting, all these things are very crucial."

David Abraham: "Designers and designs represent just one component in a whole cycle which includes industry, finance, marketing- and your design has to fit within that cycle and work efficiently. A designer has to realise that he or she is part of an entire chain and must function effectively with the disciplines of other professionals."

Nobody goes in for design just because it happens to be there. Design today, as at any other time, is a problem -solving strategy to use less material in making a casting, or a more efficient mould or to create more visible graphics, or to communicate with an audience that cannot read. Such problems are not solved in a designer's lonely garret. The solution lies in teamwork. At the moment of creating an idea, as much as in strategising, follow-up, planning and implementation are important. As professionals you will learn teamwork as you go. But learn quickly. NID designers have the reputation of being loners with the nose a bit up in the air. This leaves you open to traps at your feet. Shanu Bhatia told us of her personal experience. An NID graduate was seeking a job. Yes, he would let her have perhaps one creative hour a day, working on his own. But he expected a major salary for that effort. It's not that he a shirker. It was his slightly arrogant belief that an hour on his own was worth a day of his functioning as a team member. Quite intolerable.

Balasubramaniam: "There are always clients who tell me, "I don't have money, will you do it free?" or can I do it for less money, etc. I always make it a point to send him a bill even if it is a free job. So that he realises what it is actually worth. So send him a bill. Tell him it is a 100 percent discounted bill. It is worth doing that because the client will probably never again call you for a free job and, secondly, he will also understand the value

of what you have done."

If the way things have gone in recent times is an indication for the future, most of you will set up small proprietary companies of your own. It is of tremendous importance that you learn to be business-like. Shanu Bhatia was making the point that many clients don't understand that the design service must be paid for, like a visit to a doctor, or like a trip by taxi! Being business-like means that you have, above all, and first to value your own work. That simple rule that a Kirana merchant uses on you needs to be employed on your clients. But let us go a step further.

A business-like approach to your business is important. But even more important is your need of a sense of entrepreneurship which beings with knowledge of the consumer and the human need that you must satisfy. It is this sense of enterprise, of entrepreneurship, that distinguishes the successful professional from the slightly scruffy 'also-ran'. Being an entrepreneur is a mental attitude — the ability to smell a marketing idea before others do, the courage to take a risk with responsibility, the strength to persist, the vision to keep up with innovation. Consider for example, the leaf thali. Or Anand Sarabhai's cane cycle or tin trunks made of scrap. These are real marketing opportunities.

There is also the tendency of disciplines to converge and form larger, integrated areas, such as architectural crafts, computer graphics, intelligent buildings. The good professional also sees and occupies the spaces between disciplines. Those between, say cane weaving and product design, textile design and habitation, design and journalism and the like. All these suggest new partnerships, with professionals from different disciplines working together. It would be idle for me to quote

examples because there are so many. But what is important is that you lay your mind open to interdisciplinary possibilities, while you pursue your own particular profession. Being a good entrepreneur does not conflict with being a good designer.

Balasubramaniam: "One of the lessons I have learnt in the profession is that the client who pays the most does not come back to you a lot. It is other way. The guy who pays the least will demand more and more. Never underestimate the small guy because, all else apart, it is he who actually spreads the good word, who actually helps you in the profession. And the big guy may have actually got things done from you but probably doesn't remember you. So is he really worthwhile?"

Caring creativity, teamwork, entrepreneurship, integrity and the rest of it — does not sound like too much fun, does it? Yet, Amardeep Behl assures us that it is fun. Prasoon Pandey says the same thing, but in a very different way. We got into the business because we meant business, he says.

Prasoon Pandey: "We didn't get into the business to be nice to each other, we got into the business because we meant business. Okay, so in the process you may have to steamroll your way over the client. If you have to throw a tantrum, if you have to call him names, if you have to tell him a lie, feel free to do it. But only once you have cracked it for him, at that point of time he will suddenly change all his views about you."

And that is from Prasoon Pandey who as you know is a creator of that marvellous Ericsson commercial of the girl with the mobile telephone under her hair who an elderly client in a restaurant believes is making a pass at him. Are we then at the end of all this drifting far from our Indian moorings in a business sense, and, more important, in a cultural sense? Is

there some truth after all in this fear that economic liberalisation brings in tow alienation by media baggage? What is going to happen, with the multinational culture coming in?

# WHO IS THIS?

To some extent Channel V is a sort of a symbol of our dilemma. Yet, we have to realise that a centralised way of working in which a creative outlook, a cultural attitude which has evolved in New York say for the Asia Pacific region is not going to sell in another region, in another culture, whatever the products. And Channel V and other TV programmes reflect this realisation. A lot of people coming from outside are going to see the value of the indigenisation of communication, indigenisation of design, and conversely that we have is a culture that is more comfortable with our own heritage. I think we are passing through a phase of questioning who we were and are, and yet I think the generation that is coming up now is now not questioning that. They have already worked it out in their minds, and know they are a bit Indian and they are a bit of something else and they are happy.

No one man designed the Lota, Charles Eames told us. It may have taken a thousand and more years of use for the utensil to attain its marvellous properties of beauty wedded to functional utility. But today the professional designer does not have a thousand years to come up with a logo design or idea for an exhibition. An alacrity and quality of response must be delivered across the table. What is the wellspring in the designer that must be tapped?

**Prasoon Pandey:** "I have always felt that all of us, film makers, graphic designers, product designers, all of us connect in a huge company called Creativity. That part doesn't change

whether I am selling a car or soap or, for that matter, literacy or clean water. The creativity part does not change. That commitment does not go away. And that is where the passion comes in. It doesn't matter whether it is clean water or Mercedes Benz—they both demand the same passion from you."

Design professionals must, by their very nature, be creative. But what does that actually mean? The definition that most appeals to me goes like this: "creativity is the act of bringing together two things previously not associated to create something new with meaning and purpose. To provide a very famous example there were these two blind with beggars at opposite ends of a maidan. Both had small thalis beside them to hold alms. Both of them had placards beside them testifying their handicap. One beggar had a thali overflowing with notes; the other held only a few coppers. This unfortunate had his placard reading, "I am blind." The other one had a sign which said, "It is spring and I am blind", by adding the previously unrelated but relevant concept, one highly creative beggar had fashioned a powerful instrument of persuasion. He had added value to his statement. A creative idea had created a competitive advantage.

Now, all this may be to make a simple point. Whatever you tackle, be very clear what you will be creative about. What you can do best and what difference your contribution will make. Don't arrive with the solution before you know the problem. Today, no designer can solve single-handed the typical problem brought in by the client. The chances are that you will be required to function in a problem-solving team. Not as a lone designer with a pen of authorship poised to sign the great creation. Charles Eames said as long ago as 1978 that the days of signature design are over. The designer's creative contribution is

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likely to be held deep within a tightly organised overall scheme, which is the true solution.

But anonymity has been the signature of great art done the centuries. What were the names of the stone-carvers in Khajuraho, or of the jewellers who worked on the inlays of the Taj Mahal, or the painters of the Mughal miniatures of the Pahadi School? To say nothing of the men who built those glorious cathedrals of the fourteenth century like the one in the Charters and Notre Dame.

Ashoke Chatterjee speaks of what he calls the culture of quality that must underpin a professional designer's work. But how does one go about fostering that culture? What in fact, do we mean when we use the world 'quality'?

Somnath Datta Roy: "Well, very generally, quality is something where there is no compromise. I give you an example of life in Bombay. Here we are born with compromise, in the very hospital which has no proper incubators. We start the struggles from Day One. We grow up and struggle to get into a decent school. We struggle to get into college. We struggle to get a job. We struggle to get into a train. It is a struggle all the time, and what are we doing? We are compromising all the time and we don't stop doing it even in the smallest part of life. There is no water in the house. No problem, we will manage without water. Why? The concept of design suggests a path. In design there is no scope for compromise. We have to find the best way to do something. And when I say 'best', I mean absolutely best. We cannot be content to say 'This is not possible,' 'There is not money,' 'Material is not available.' No! If the money is insufficient, find a way to increase the budget. If you can't bring in money, modify your design so it costs less. But when you have produced something, see to it that it has been done with fullest happiness in your mind, without any compromise. That is quality."

You need a designer's mind to come up with that overall perception that goes beyond just the designing of a product. In India we live in a "Chalega, kya karega" culture. Ours is an immense capacity to accept and adapt to plunging standards, as in the corruption in our leaders, the fact of proven criminals in positions of authority, voted there by us in free elections. Designers must resist becoming infected. It is not enough for us to reject compromise only in the world of form, colour and line. What about the water that we have decided to do without? Minds with sensibility do not switch off at 5.30 p.m. in the evening. We must lead society in new directions — in the measure of our professional permits. That is the price of the privilege we have enjoyed and are enjoying on this beautiful lawn. It is a social role that no responsible designer will refuse to play.

Prasoon Pandey: "In fact, selling soaps is a great learning ground for selling clean drinking water to people. Let us say I spent 10 years in hardcore advertising selling creams which are supposed to stop you from aging, or cold drinks all of which taste alike but create different feelings for them... If I have done all that, I am better prepared to then go in and deliver on a subject which needs social, habitual change. Suppose you are talking to a man who has always used water in a particular way. Now you say, 'No, do it this way'. I think, if you have been able to con people into buying a soap because it is green and not pink, then you are that much better equipped to address them on the subject of hygiene and clean water."

But then what shall we actually do? To quote one example,

the United Nations have in four years conducted five crucial World Summits — on environment and development in Rio De Janeiro on population and development in Cairo, on social development in Copenhagen, on the role and status of women in Beijing and on human habitations in Istanbul. Each of them has spawned its own practical, do-able programme of action at national, district and community level. All of it to do with lifeand-death issues that brook on tardy follow-up. Take Agenda 21 — the Rio document for example. We live in an energy-scarce world in which fossil fuels are limited in availability and pollutive of life. Where waste of such resources is an aggression even if the concerned producer can afford the monetary cost a world in which the price fixed for energy blithefully ignores its full cost, the ecological toll or the wages of ill health caused by aerial pollution. In a world of this kind, designers could play a hinge role, a social role, without ceasing to be professionals. They enjoy the trust of the clients. They could recommend much that is more environment-friendly and nurturing of development through their attitude to plastics, to the use of paper, to the cost of maintenance and the complexity of technology and its use in the households of the world increasingly illiterate. "Green Designers" sounds like a colour scheme out of ET, but they are surely a necessary development in India.

Balasubramaniam: "For the graduating class, I have a couple of things to tell you. One is to check out your seniors. I mean get to us earlier. It is worth coming and consulting with us or even discussing what you intend to do. You don't want to go through the pains of growing up which we have gone through. The only other things that I would like to say are, come, there are new specialties, there are new possibilities, and

there are the new global companies. There are a whole lot of things waiting to happen and you can change the world. Come, we'll all change the world together."

We will change the world together. I have tried to suggest what your corner of the world is like: competitive, globalising, immensely pressured and demanding, cost conscious, not yet sure of what design is worth. Design cannot be art, it must be problem solving. And since in the real world problems are multisectoral in their roots, the answers must be multidisciplinary. So be ready and happy to work as a team member. Learn. Do it all the time and with the best people. Value your work and be business-like about it. Don't despise commerce. The bazaar is the akhada where you will toughen your creative muscles, even for the challenges of that more serious arena, the arena of development that is as vast as our land is distressed.

I said earlier that NID today is a living tribute to many people, but above all to its faculty and its directors. I would like to pay personal tribute to the Director who has led this Institute for many years of the 21 since the Thapar Committee Report, who has been a part of NID one way and another for all that of that time. I mean Ashoke Chatterjee. We knew that the Report that we wrote would have meaning only in the hands of the right Director. We found him. Ashoke Chatterjee reminds me of a pressure cooker, bright, warm and efficient with energy. To that I would add two words — vision and compassion. NID owes much of its soul to him; in my opinion Vikas Satwalekar is a worthy incumbent in an honourable tradition.

A final point. We have said much about the professional and professionalism. But let us recall Elizabeth Dobson Grey before leaving the subject. She says it is good for a professional to be

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reminded that his professionalism is only a husk. That the real person must remain an amateur, a lover of the work. Whatever we do well must be done spontaneously for its own sake. Like the decision in the middle of the night to get up and do a sketch or bake a muffin. So good work, happy designing and little bit of luck.





"SKILLS TO DESIGN ARE MORE IMPORTANT, YOUR APTITUDE OF DESIGNING IS MORE IMPORTANT THAN WHAT IS THE STAMP OF YOUR DESIGN BECAUSE THAT STAMP IS IMPORTANT TO CREATE A NICHE FOR YOURSELF BUT ULTIMATELY UNLESS THAT STAMP RELATES WITH THE NEED OF THE USER AND THE CUSTOMER, THE DESIGN PROCESS MAY GET STARTED BUT DOESN'T GET CONCLUDED."

— Shri Subodh Bhargava

Industry as Customer of Design

hri Hasmukh Shah, Shri Satwalekar, Shri Piyush Mankad, members of the faculty, students of this institute, ladies and gentlemen and above all the batch of '97 of NID, the students graduating this year. When first Shri Piyush Mankad and later Vikas Satwalekar asked me to come and attend this very solemn occasion and assigned me the task for addressing this august gathering. But the honour in the invitation and the inquisitiveness for an occasion like this lead me to not only agree but in fact look forward to the occasion. I must admit that this is the very first time that I have witnessed a convocation ceremony. Fortunately, I did graduate but missed the opportunity of being personally present at my own convocation .... and I had to make do with mail and I am sure what happening today it might be in email only. But that's how the time has been moving, moving really fast. And therefore you can imagine, I as the first time at a convocation and that also to give an address would be a bundle of nervousness but when this honour has been bestowed on me I think I would try and make an effort to share some thoughts on this occasion. It is indeed a privilege and an honour for me to be part of this very very special occasion. I greatly appreciate the opportunity which the National Institute of Design has given to me to share my thoughts today and before anything else let me extend my very very hearty congratulations to each one of you, each one of those who have graduated this year, for having successfully completed your programme. You have I suppose now finished a very exciting phase of your life and now from tomorrow onwards and in the near future you begin a new innings which I am sure not only be only exciting but also full of challenges and full of opportunities and I am sure the opportunities

today would be global both in character and opportunities in numbers. I wish you success in your next stage of life and your journey. I cannot and do not wish to advise you all on design because I think that is best left to the experts.

I come from a background of industry and management and that's the world I am familiar with. In fact I see myself here as your customer. The industry receives the products of NID into our teams and also industry extensively uses the products and services you design. And as a customer, as a person who has customer in his focus I recall last seven years of the experience that Indian Industry has had, when for the first time industry thought of, thought about who is a customer, what is a customer. Quite, frankly in my view the achievements which the Industry in India has scored over last seven years far far outweigh our achievements and deeds for preceding 50 years if not more. The first reaction in 1991 of Indian Industry when liberalisation started and competition was inducted, was of panic. There was fear amongst us whether we would able to survive with respect to both domestic and global competition. But I think these panic reactions where short lived unfortunately. Indian Industry rose to the challenge, the threat, converted it into the opportunity and has brought about some very fundamental changes. Indian industry has changed in its attitude, Indian industry has changed in its internal structures, Indian industry has changed in its style of functioning and I think above all Indian industry has changed its outlook towards change. We have recognised that change is the only constant and change is the only continuous process, which we have to face and live with.

We are quite frankly learning and acquiring new skills both

in managing change bringing about change and facing the future. I must add that we have long, long way to go. I don't think many amongst us can claim to be global or having achieved our objectives but in my view today there is a critical mass in the Indian industry which recognises the need to change, recognises the opportunity and has initiated this process of change. The greatest change which industry has actually reflected is that we have for the first time started not worrying about what is happening at Udyog Bhavan or at the corridors of power in Delhi. We have started looking at the market place. For the first time we have started thinking strategically, developing strategic plans for business, developing strategies for markets, implementing strategies for customer and that outlook towards customer encompasses everything else regarding change whether it is the function of design, manufacturing, adding value in the process or above all I think, the human resource, the capability. The paradigms that people working in organisations were hands and feet has been changed all together. I must say today the new paradigms is that is not only the management degree or engineering degree or other degree holders only but even the blue collared worker including the illiterate worker given the right opportunity, right training, right recognition, right motivation, right inspiration is as contributory, as capable as others and this to my mind is the underlying foundation on which Indian Industry would be building itself in the future.

I would like to expand a little bit about the word customer. Traditionally we have all believed that the person who paid the money for the product, or the service, was the customer but today I think the industry recognises that there is an ultimate customer the final consumer, the final user whose satisfaction

and whose needs are more important than the intermediate or the immediate customer. Today we are reaching out to the customer to not only satisfy the customer but delighting the customer. In fact I often recall one of my own experiences. Ten years ago in Delhi my wife bought an electric iron and next day when we wanted to use it we found that it did not function perhaps the coil was defective or burnt. She took the iron back to the shop and wanted to claim warranty or bring to the notice of the person that it was defective and it should be repaired. The shopkeeper had no patience and he told her "were you blind when you bought this iron". Four years ago or five years ago the same thing but in a different context. We had bought a small toaster from a company in a shop in Delhi and there was a problem after two days with that toaster when we reported this to the shopkeeper it was not only the shopkeeper who went out of the way to replace the unit, three people from the company, the manufacturer not only telephoned but called at the house to ask my wife if she were happy with the product.

And this has come about only because today as a tractor manufacturer, the truck manufacturer, the toaster manufacturer or iron manufacturer have to face competition in the market place. But I think equally important in industrial context is the concept of an internal customer. Industry, industrial processes are a value chain, a chain where each one, at each stage adds value. In this value chain which starts with the designer, the internal customer of the designer is the manufacturing unit who manufactures that design. The internal customer of the manufacturer is the sales department who receives the product for taking to the market place. Depending on different transactions when I want a payment to be made to my supplier, the

accounts department becomes an internal customer. In fact all these functions in a value chain are interactive, interdependent, mutual internal customer to each other, depending upon the transaction which we are talking about. Whereas it is very important to take care of the needs of the external customer but I think the quality organisations have learnt, have acknowledged that the internal customer is equally important if not more, because if we are able to bring about an internalised concept of internal customer, the quality of the end product and the process flow through the chain are of much higher degree and are very much more efficient. It is therefore to my mind important to recognise that while giving full vent to designer's own creativity it is extremely important to consciously recognise and meet the needs of your internal customers when you start your working career. In the current scenario where globalisation is increasing at a very very rapid pace, competition both domestic and international means that we, that's India for that matter any other economy identifies for itself the long term sustainable competitive advantages.

There are many myths in this regard and I think therefore this may be an interesting perspective to share with you. Michael Porter, a US management consultant talked about the several factor conditions which are important to bring requisite competitiveness into a system and he identifies six of them very clearly. First is the raw material availability and its cost; second, the human, resource, their skills and the wages or the cost, third the infrastructure both social and economic I need not elaborate, the fourth is the learning institutions where the knowledge is developed, imparted. There are supporting institutions for research for market research. There are supporting institutions

tions for using and enabling transactions from banks and stock exchanges and what have you. In addition to the institutional set up there is of course the need for finances and finally the key need is knowledge and technology. Without knowledge and technology to move ahead is not possible. It's not to my mind due to our Indian mindset that we have low wages. We have all the raw materials by God's grace and by gift of nature would make us long term worldwide competitive, I think it's a myth. The fact of the matter is that the low wages can be very temporary phenomena. Today Vietnam, Bangladesh, Nepal not only offer low wages but if they offer higher productivity, that this advantage of low wages is a zero advantage.

Similarly of raw material I think we in India have learnt with the advancement of technology how the advantage of raw material can be negated overnight. Indian jute industry came a cropper when the synthetic yarn was brought about with technological advances and since then Indian Jute industry has really not been able to realise its potential out of whatever competitiveness it offered. So, it is not really important to have one or two of what really Michael Porter goes on to say is its extremely important to have all these factor advantages or many of these in a cluster. And what he means by cluster is that these are capabilities, interactive institutions, which are working with each other in close geographical proximity all the time to build the required of competitive advantage. You are students of design and you all know that Italy is the world leader for leather products. It does not have cheap labour, it does not have cheap leather but it has the required design capabilities, design institution, user sophistication and a complete feedback into the loop to keep on improving that industry to retain its

competitive advantage. Similar examples are Boston area in US which has built its capability on medical industry where you have from medical colleges to hospitals where knowledge generated is experimented, used and if there is any improvement needed in a closed loop, the feedback is given and an improvement takes place thus you keep your competitive advantage. Similar examples I think even in India, Punjab could claim that vis a vis agriculture. Bangalore like Silicon Valley could claim this advantage in respect of software or information technology. So, I think in this cluster or in the value chain, the role of the designer, the role of the design is not only the starting point but each one of us is recognising and giving due importance that it is a very, very critical input in this value chain and in the cluster and to that extent to my mind Indian Industry is looking towards you.

The graduating students of design, the people who have the flair, the innovation and the systematic knowledge of design to add value in the chain and to be present in the cluster. In fact I believe that it is the quality of the design which will determine the cost, the maintainability, the serviceability, the quality, the reliability and actually determine the quality of the competitiveness of the product which we have. However, as I mentioned design cannot be working in isolation. Design to my mind is not an end unto itself, it is not a stand-alone activity. It is primarily the most important element in advancing, enhancing the value of the product to the customer the most important enhancing element. The processes of design working not in isolation but together have been perfected by the Japanese. The Japanese have introduced what they call a quality functional deployment technique. What they do is they create the cross

functional teams. The team which is centered around the designer includes not only the internal functions and internal customers of manufacturing buying, accounts etc. but also, external customer user also include suppliers and these teams then sit down together over several weeks or days to build what is called a house of quality. This house of quality is a tool which has been developed to perfection where the contradictory or conflicting requirements of cost and quality performance and life, expectation of different manufacturability to aesthetics, the customer need for certain particular say in a design of a ball point pen, the fineness versus smudging of the paper — all these things are put together and built into a house to evolve a design which is a design which meets all the requirements. And this quality function deployment technique needs what I would call an immense skill for teamwork working.

In fact the role of the designer doesn't get concluded by just giving a design or the drawings. It continues not only till manufacturing but also into the field in the market place to launch the product, to install the product to see that the product is meeting the requirements of the customer. The designer is carried through throughout. Designer is not in isolation in one corner room designing, but he is part of the team part of the whole thing throughout the entire process and this brings me to the issue of teams. Is team at the expense of the individual? Is it that when we work on a consensus taking into the account the other requirements are we sacrificing the creativity of the designer? Is that the perception or is that a conflict?

To my mind people who have been associated with quality organisations recognise that the internal customers, cross functional teams working together enhance each other's creativity

and capability, they do not take away from each other, It is not at the expense of each other, the experience amply proves it. Unfortunately in India from the primary school to admission to another school to college to institutions we have been subjected to fierce competition only and we rarely get the opportunity to recognise the value of working in teams. May be once in a while we watch on the television or a part ourselves of a cricket team or a hockey team but how often otherwise we are exposed to work in team working where we enjoy and get delighted because we have achieved something as a team? Very rarely and I think today the industry therefore is having to take on this task of getting people to link with each other, relate with each other and work in teams.

It is easier said than done but to build skills for team working we have to work on several planes. The first, the individual plane where each member of the team has to first recognise that he has got a total internal security. His jobs, his promotions, his career, his design are not threatened. The personal level internal security is the key. At the interpersonal level there is need of great deal of mutual empathy, mutual respect for each other. At the managerial level there is need to build in competence through training. Through a de-layering of hierarchies, to delegate authority and power at the organisational level where is the need for changing structure from watertight compartments to making cross functional teams and at social level there is need for trusting each other despite competing with each other. Trusting, building consensus, sharing vision and it is these very hard tasks performed at several levels which have enable teams to emerge and become champions in their respective areas. And this I think is a process which can thus be

identified once again with change and this is where the design or the designer can be the change agent. And why not, because I think in the competitive environment it is not the product quality or for that that matter even the technology or pricing which will give a long term sustained advantage. It is the two extreme ends of the value chain, the design and at the other end the after sales service which are going to give a competitive advantage in a very, very crowded market place for the products which we then manufacture with your designs. And as a change agent I think what is extremely important is to have a consensus between the supplier and the buyer. There is need and necessity to balance the urge, the imperatives of creativity, individuality and the customer requirements. There is no point an architect wanting to build a house with his spherical or hemispherical or semicircular rooftops or arches if the customer is looking for something else. The design cannot be translated if there is a conflict between the two. Ideally, there should be no conflict but if there is what are we going to do? To my mind there is only one thing that we try to suppress — the respective egos, the ego really becomes the third invisible customer in this process of coming to an agreement and this has to be done in the customer oriented market context. The role of convincing has to be on part of the supplier.

In the design context it is the designer who has the onus for carrying his view, convincing the prospective customer these are the quality, the aesthetics the functionality etc. etc. of his design. If he takes the view that I am a designer, I know all this fellow doesn't know, why the hell has he appointed me, he couldn't care less, then I don't think the marriage could take place. A person, a textile designer who cares who wants her or

his own stamp on the design that from a distance it is recognised that it's a Hussain or he is so and so. Fine! You cater to a certain range of customers who may be willing to enjoy or appreciate that particular style but you are leaving out a large universe, because of the large universe, is to be attended, I think it is your skills of designing which are more important. Skills to design are more important, your aptitude of designing is more important rather than what is the stamp of your design because that stamp is important to create a niche for yourself but ultimately unless that stamp relates with the need of the user and the customer, the design process may get started but doesn't get concluded.

I think I would like to take one or two aspects to touch upon and that is the role of the designers, which Indian Industry has. The fact of the matter is that historically in a protected market Indian Industry neglected either a designer for that matter any other specialist, an analyst or someone who is very deep thinker, we had the time and patience to recognise and reward generalists only. But I think the whole paradigm has changed today with the increasing competition, customer demands changing overnight need to respond to customer requirements promptly. The Indian Industry is today very clear, very conscious that we need to respect the designer, we need to respect the specialist, we need to provide both the space and career opportunity so that they are a happy lot, to add value to our value chain.

But then there is another question why the designer should be looking at dependence on corporate world alone. Why not seek for yourself an entrepreneurial role also. The fact of the matter is that large number of industrial units are small and it will make sense for them to buy or to hire certain specialist design capabilities rather than have full time members on the team and on the other hand if the designer, he or a she working on their own or in a cooperative mode can reach out to the industry they will also have the benefits and the satisfaction of contributing in more than one segment of the industry. But I think what's the very good news is that the corporate world is recognising that design is good business also. World over there are design companies which are part of the corporate structure where designers do get career opportunities equal to or similar to what any other functionary would get.

Let me conclude by sharing my vision of what I see what I expect what I hope what I wish the future the near future in India has for us. I believe that we in India are on the threshold of a major leap in respect of globalisation, of ourselves, our economies and also growth. Globalised India offers you many many more opportunities than it was ever possible before and I am sure many of you would have made your career choices but I like to add that the opportunities coming your way tomorrow will be many many more than your seniors could relate with you or tell you about based on their past experiences. The economic reforms in India have continued at a faltering pace, we all wish they were faster, we all wish they were deeper and wider but the fact of the matter is they are all confident that the reforms in the market orientation is irreversible. It is equally true that India can never be like an Asian tiger. We have talked about, we have heard about, read about the ASEAN countries and we have heard how the ASEAN tigers grow by leaps and bounds. But India with its 980 million people the size and breadth of our country the character and quality of our democracy I think makes it imperative that we do not think about

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moving at a pace which ASEAN tigers could do. With whatever its pluses and minuses I think India is not a tiger it's more like an elephant which has got its size and its own constraints. But the good news is that the elephant, the elephant India is not sleeping it has woken up, it has taken a complete 'U' turn and it is moving ahead surely and steadily. I wish that we in the industry and you the youth of India could work together to make good design synonymous with good quality of life and good economics, good politics. I seek your support, I seek your commitment and with that once again I would like to extend my best wishes to you all and to the National Institute of Design for the future.



"SUCCESS IN DESIGN DEPENDS ON NEVER CEASING TO LEARN. IN NEVER ENDING THE SEARCH FOR EXCELLENCE. THE WORLD CHANGES. WHAT WAS TRUE YESTERDAY MAY NO LONGER BE TRUE TODAY. WE MUST SEEK SATISFACTION IN OUR WORK, BUT WE MUST NEVER BELIEVE THAT WE HAVE REACHED A PINNACLE THAT IS BEYOND CHALLENGE. FOR THAT CHALLENGE COMES FROM WITHIN AND MUST ALWAYS BE GUARDED AGAINST. LEARN FROM EXPERIENCE. LEARN FROM OTHERS. LEARN MOST ESPECIALLY FROM THOSE WHO LIVE IN OUR VILLAGES AND IN THE HUTMENTS OF OUR CITIES. LEARN FROM THE POOR. THEY HAVE FACED A FAR MORE DIFFICULT LIFE AND HAVE, OFTEN, NOT ONLY SURVIVED BUT THRIVED. THEY HAVE LEARNED THAT THE JOYS OF LIFE ARE FAR MORE THAN FANCY HOUSE, A NEW CAR, AND A FAT BANK ACCOUNT. THEIR WISDOM REMAINS ROOTED IN OUR RICH TRADITIONS. LISTEN TO THAT VOICE AND DO SO WITH HUMILITY."

Design: Integral to Our Times

et me first thank your Chairman and your Executive Director for honouring me with this invitation to address this, the Nineteenth Convocation of the National Institute of Design. I am aware of the very distinguished individuals who have preceded me in speaking to graduating students on previous occasions. In fact, that list of luminaries is a source of both some discomfort as well as consolation. There is discomfort because it is difficult to find oneself compared to persons like Prof. Ravi Matthai, R K Laxman, Shyam Benegal, Abid Hussain, I G Patel to name only a few of the very distinguished individuals who have spoken on earlier such occasions. In fact, I must confess that at first I was somewhat mystified as to why a dairyman from a small town in Gujarat would be asked to speak to you. The consolation, however, was the recognition that many of those who have spoken at earlier convocations were not — at least in the usual sense involved with "design". Therefore my reluctance to speak to you was somewhat eased.

In looking at the list of eminent people who have spoken at your convocations it occurred to me, in fact, that what your Chairman and Executive Director had and have in mind is the need to broaden the definition of design and, as you that graduating students prepare to leave, to remind you that design is integral to our lives in innumerable ways. Perhaps, too, they wish you to consider that, as graduates of such a fine institution, you have a responsibility to deploy your talents in ways that extend well beyond the narrow confines of earning a living. Of that I will speak a bit later.

Let me first try to establish that I may have some credentials appropriate to your field. First, you may be familiar with such

logos as those that adorn the Amul products, as well as the variety of dairy products that are sold by dairy products that are sold by dairy farmers' cooperatives around India. I would like to think that both are as widely known — perhaps more so — than those logos of some of our major business houses. The Operation Flood drop was developed with the help of NID and, today, is found not only in every corner of our country, but everywhere that our dairy products are exported — a symbol of quality and fair price.

We have also been involved in the design of a wide variety of industrial facilities and products. Those of you who graduate today are far too young to remember that most dairy products consumed by your grandparents and even your parents were manufactured and packaged abroad. In fact, at one stage in my career, I was told by the representative of a multinational that India was unsuitable for the manufacture of such sensitive products as Baby food. Of course, today, Amul is the largest selling baby food in India. We were told the same thing about condensed milk and, many years ago, foreign experts even told us that it would not be possible to manufacture powdered milk from the milk of a buffalo. Today all of these products are manufactured in India and are widely available. In fact, today there are few dairy products available elsewhere in the world that are not manufactured here in India.

Another and more difficult aspect of design with which we have been engaged is the design of projects. With your leave, I would like to speak a bit about this both because it is an area where I have some familiarity and also because it may offer some lessons that you will find of some interest and even use as you pursue your own careers.

I would hope that at least some of you would have heard of Operation Flood. This was a project that we began in 1970 which, by its end in 1996, had reached some 10 million of our nation's dairy farmers. It purchased their milk and provided them with services and inputs through a network of more than 70,000 village cooperatives, affiliated to 170 milk producers' cooperative unions in 22 states and union territories. It is with some satisfaction that I can mention that when the World Bank — which contributed some of the financing — took a look at this project, it was most pleased with its results. Those results were not only in dairying where they estimated that the gain to the nation was something like Rs. 52,000 crore per year, but in its impact on village level nutrition, education and health — especially for women and children.

Operation Flood was a project. It began with the belief that dairy development was an important way to ensure that our rural people would be able to participate in, to contribute to, and to benefit from our society's march towards modernisation. We believed in the wisdom, the ability, the energy and the good will of our farmers and that their productivity and creativity should become assets to our society. To do this, it was necessary to establish a just relationship between agriculture and industry, between our urban areas and our villages. Most of all, we believed that for our small farmers to participate in development, it was essential that we put the instruments of rural development in their own hands. As you can imagine, this was not a simple task, but one that involved simultaneous technical, social, economic and even political changes. Thus, the design challenge: to evolve the projects that would encourage and support such complex changes. Let me mention some of the

elements of that design.

First is the matter of scale. There are those who would argue that it is best to do things on a small scale. The risks are lower, the costs are manageable. Then, too, the advocates of incremental change would say that it is best to learn and then expand. My view is quite the contrary. Begin on the largest scale possible; raise the risks, for by doing so, you will raise the level and quality of your efforts. It is easy to sweep the failure of a small enterprise under the carpet. Too easy. Therefore place yourself in a position where failure must be inconceivable.

Second, ensure that you possess the relevant skills. If you are committed to large scale and high risks, then you must proceed with the help of those who have the experience and the skills necessary to deliver the goods. When we began Operation Flood, we had available a pool of men and women who knew how to work with farmers in their villages, to formulate and manufacture least-cost feeds, to artificially inseminate and upgrade cattle and buffaloes, to process and package quality products from milk.

Third, know where to find the skills you don't have and don't hesitate to call on them when they are needed — but do so on your own terms. No institution can possess — can even afford to possess — every skill and talent demanded of its enterprise. There are individuals who can provide that one bit of information, knowledge or insight that will make a difference. Find them and use them. But do not allow their expertise to subsume your own judgment and common sense. We were able to find and make use of expertise from such diverse places as Poland and Australia. But we were clear about where we were going and we did not allow such experts to divert us from our

chosen path. Had we, at Amul, listened to the experts who said milk powder could not be made from buffalo milk, it is quite likely that the Kaira Cooperative would not have succeeded to the extent it has — it may possibly have even failed. But our judgment and common sense told us that we could and must make that powder. Later, when some experts allowed national and commercial interests to affect their recommendations, we discarded both the recommendations and the experts.

Fourth, always know your market and meet its needs — not what you think it needs. When we began Operation Flood we knew that our four major cities accounted for six percent of our national fluid milk consumption. By capturing that market, we could create the foundation for expansion — first to other major cities, then to smaller cities and ultimately to towns. We studied that market and we provided milk of a quality and in the forms that helped us to gain the market share we needed. Let me contrast our approach with that taken, for example, by many NGOs involved in handicrafts. They often focus on a "specialty" export market. The volumes are small, they are subject to volatile shifts in fashion and taste, and they are not significant to the buyer. We sought to build large volumes of sales in a commodity that was central to the diets of almost all of our citizens and where we could gain and sustain a competitive advantage.

Fifth, listen to your consumers. When we began marketing milk in our metros, most milk was delivered to the house in a bucket. Conventional wisdom said, package your milk in a clean, brightly printed glass bottle. We knew, however, that the glass bottles simply added to the cost and complexity of the operation of selling milk in large volumes. We also knew —

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in fact, I directly knew — that no sooner is milk purchased, it is boiled. Therefore, we evolved a milk dispensing system — the Mother Dairy Milk Booths — that was inexpensive, easy to manage and which provided milk in the form and at a price that our consumers wanted. Over time, we listened to our customers and provided options full cream milk, toned milk, milk powder, etc.

Sixth, respect your consumers. It is still surprising to me how little respect our private sector and their advertisers and marketing firms have for the Indian consumer. They seem to operate on the premise that you can fool some of the people all of the time, all of the people some of the time, and those are pretty good odds. Quite possibly that helps to explain why so few new products are successfully introduced in our country. Even when those new products carry "reputed" brand names. Listen to what the consumer wants, offer them a cafeteria of products or services that are consistent with what they want, provide those products at a fair price. Respect the consumer and the consumer will respect you — and that holds whether you are selling butter and cheese, or shampoo, or a political party.

Seventh, never compromise on quality. The Amul family of products now have an annual turnover close to Rs. 2,000 crore. Even private sector corporate executives rank the Amul brand as one of the best in India. Why? Because Amul products are synonymous with quality. Day in and day out, when a consumer buys Amul butter, or cheese, Amul ice cream or mithai, they buy with confidence that the quality will be superior and the price will be competitive. That would explain why when Amul introduces a new product — even without a great deal of fanfare — the product succeeds more often than not. People trust

the Amul name they know that inside the package is quality — quality however extends beyond the product. It is what we live. Everything we do should be focused on ensuring quality, whether in services, products or the way we relate to one another.

Eighth, be sure that your design will be implemented by young, committed men and women. Operation Flood, when it began, was opposed tooth and nail by a great many people: it was opposed by bureaucrats and technocrats who feared that it would undermine the established hold they had on development. It was opposed by local, regional and even national politicians because they saw the risks in empowering our rural people. It was opposed by local traders, by big business houses and by multinationals all of whom were threatened by the possibility that cooperatives would link the producer with the consumer while avoiding the expensive and rent-seeking chain of middle men that have long dominated India's commerce. If we succeeded, major credit must go to the young professionals who — often at great personal risk — took the Anand message to farmers in every corner of the country. They lived under difficult conditions. They worked for low salaries. But they had a belief in what they were doing, a belief that was reinforced every time a farmer joined a cooperative and every time a cooperative began buying milk and providing inputs and services. That commitment was the key to success. It still is.

Ninth, honesty is not just the best policy, it is the only policy. The honest man possesses enormous strength in any society, and even more in one where honesty is not widely prized. By the same token, dishonesty — even in small ways — weakens and ultimately destroys. It is possible to call forth great

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sacrifices from many people; it is possible to engage an army of volunteers in any noble enterprise, provided you are honest. Once you begin the slippery slide toward corruption, you have an Achilles heel that sooner or later — and more often sooner — will destroy your potential and, in the end, will destroy you. Perhaps my greatest pride is that the National Dairy Development Board prizes the honesty of its officers and its climate of honesty above all else. As long as it retains that pride, it will continue to do good work.

Last, endow all your works with humility. Success in design depends on never ceasing to learn. In never ending the search for excellence. The world changes. What was true yesterday may no longer be true today. We must seek satisfaction in our work, but we must never believe that we have reached a pinnacle that is beyond challenge. For that challenge comes from within and must always be guarded against. Learn from experience. Learn from others. Learn most especially from those who live in our villages and in the hutments of our cities. Learn from the poor. They have faced a far more difficult life and have, often, not only survived but thrived. They have learned that the joys of life are far more than fancy house, a new car, and a fat bank account. Their wisdom remains rooted in our rich traditions. Listen to that voice and do so with humility.

Thus; may I suggest to you that the lessons we have learned in designing projects may serve you in other fields of design—

- ~ Do things on a large scale, large enough that you cannot admit to the possibility of failure;
- ~ Ensure that you possess the relevant experience and skills;
- ~ Call on others when you need them, but on your own terms, clear in what you seek to achieve;

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- ~ Know your market and what it needs not what you think it needs;
- ~ Listen carefully to the consumers;
- ~ Respect your consumers;
- ~ Never compromise on quality;
- ~ Ensure that you and those you work are committed to your purpose, that they are young and energetic;
- ~ Remember, always, that honesty is the only policy it will give you enormous strength;
- ~ Endow all your works with humility, listening to the voice of wisdom from whatever quarter it appears.

Now let me turn to the responsibility of the NID graduates. You have attended an institution of excellence. In your times here you have had opportunities that are bestowed on very few of your brothers and sisters. Perhaps, though, you have seen the beauty of a sari designed and printed by an illiterate woman is Sanganeer or Kancheepuram. Or the elegance of the castings by artisans in Palghat or Gurdaspur. In Sahranpur artists work magic with bronze in Jaipur, silver and stones are transformed into dreams. In fact, throughout our land, there are lakhs of women and men who with their hands and hearts craft designs of exquisite beauty and extraordinary utility. In some other parts of the world they would enjoy fame and wealth. All too often we exploit their skills and enrich ourselves

You are the children of the new economic policies. In some respects this may make your lives better. Perhaps, in time, the shackles of an archaic bureaucratic regime will rust and allow you far greater freedom than was enjoyed by your parents' generation. But gone, too, is the sense of responsibility that we all had for those less fortunate.

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When I was a young man, India became free. We had thirsted for that freedom and when it came we knew that the India of our dreams was, at long last, a possibility. For freedom was not an end in itself, but gave us the opportunity to build an India that was strong and that was just. It gave us the opportunity to create a land in which everyone — whether born in a hut or a palace — could achieve their full potential. Our leaders then took certain steps to move us in that direction, to ensure that every citizen of India had adequate food and clothing as well as access to health, education, and housing. Yet today, that dream remains unfulfilled. Think, for a brief moment, of the contrast — nay, the gulf — between our villages and cities.

Our cities have fly-overs and fountains, roads that are paved again and again — sometimes whenever a visiting dignitary may choose that route. Many of our villages still lack an all-weather road to transport the few goods they need and the produce they wish to sell.

Our cities have hospitals that are the equal of any in the world. Yet, in our villages, there is often no one to even place a small drop in the eyes of a child to keep her from living her life in darkness.

Our cities have buildings that reach ever closer to the sky. Our city dwellers live in increasing splendour, on par with the rich around the world. In our villages, mud and stone huts collapse in a heavy rain or shatter with a tremor underground.

Our cities have National Institutes of Design, or of Drama or Engineering or Business. In many of our villages there is no teacher to sit under a tree and help the young of those villages to learn to read.

In our cities we complain that the price of onions or pota-

toes has gone through the roof, mindless of the lakhs of our fellow countrymen who cannot afford an onion in the best of times and who may not even have a roof.

Each of you, today, stands equipped to command a high salary from a wealthy firm. Some of you will be offered the chance to design those urban fountains and palatial flats, or to fill them with luxurious "ethnic" furnishings. Others will be asked to design a new packaging for shampoo, one that attracts the eye and empties the pocket. Some will find a role in our advertising firms, creating an ever-increasing demand for coloured sugar water or chemicals to smear on the face. I am sure that most of you will seize such opportunities, at least at the beginning of your careers.

However, as I look back, let me offer a somewhat contrary view. Almost fifty years ago I arrived — young, as you are today — in a small, dusty town in Gujarat, not far from here. My only goal was to leave that town for the glamour of Bombay, to take my destined place among the captains of commerce and industry. By good fortune, though, I came to know a man, Tribhuvandas Patel, who was wise and caring. Although he could most likely have achieved a greater standing — of some considerable fame and fortune — he found his happiness in life by serving the dairy farmers of Kheda District. That happiness was infectious and I caught it. Fifty years later, I have never left Anand and have no desire to leave. More, there is not a moment in Anand that I have regretted.

You are, now, facing the beginning of a life filled with choices. You have, before you, an infinity of open doors but, sadly, with each such door you pass through, several others close. If I have a word of advice — and Convocation addresses

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are meant for the old to give advice that the young are meant to ignore it — that word is that life should be work and play and love and that you must neither ignore any of those nor ignore the quality of any of them. Most of us do spend a large part of our lives "at work." The quality of that work is what matters. And what lends quality is not the salary and perks, but its meaning. I, for one believe that meaning comes only from placing one's talents at the service of those less well endowed. As I close my remarks to you today, let me express the hope that at least one of you — I will be quite satisfied with one — will choose a path less travelled, one that places service to our nation's poor above self and family. And I will wager that if there is one of you who does so, in the end you will be the richest one of all.



"WHEN WE TALK ABOUT MADE IN INDIA TODAY, WHAT IS OUR IMAGE? I THINK THAT IS SOMETHING THAT WE NEED TO BE SERIOUSLY CONCERNED ABOUT AND THEREFORE IT IS EXTREMELY CLEAR THAT UNLESS WE MAKE PARADIGM SHIFTS AND PARADIGM CHANGES WE ARE GOING TO HAVE DIFFICULTIES. LOOKING AT DESIGN FOR INSTANCE, ONE WILL HAVE TO REALISE THAT WHEN THE DIGITAL WORLD IS COMING, THE INFORMATION AGE IS COMING, HOW DO WE BRING IN THIS ISSUE OF AESTHETICS OF THE INFORMATION AGE IN DESIGNS. THE INDUSTRIAL REVOLUTION SHIFTED THE DESIGN ACTIVITY TO THE DRAWING BOARD AS WE ALL KNOW. NOW IN THE INFORMATION AGE, CAD CAM IS LIKELY TO SHIFT THE ACTIVITY FURTHER INTO THE COMPUTER LABS AS THE LINKS BETWEEN THE DESIGN ACTIVITY AND MANUFACTURING WILL GO ON INCREASING."

Catching up with Change

Council of NID, Shri Satwalekar, The Executive Director, distinguished members of Governing Council of NID, distinguished faculty, proud parents, proud students who have received the degrees today, the distinguished citizens of this great city of Ahmedabad, ladies and gentlemen. May I say first of all that it's a great privilege, it's a great honour to deliver this convocation address of this institute which has carved out a fantastic niche for itself not only nationally but internationally. The products of this institute have not only done industrial designs and design of products but also have helped in designing the future of India. Let me congratulate all the graduates who are going to go out in this new world and I do hope that your contributions to designing the new India of our dreams will be one which will do this institute, this country proud.

Charles Kettering once said that I think only of the future because that is where I am going to spend the rest of my life. I am going to talk about the future. When one looks at the future one sees a pattern that is emerging and in that pattern one sees that tomorrow's societies are going to be knowledge societies. Tomorrow's industries are going to be knowledge industries. Tomorrow's management is going to be management of knowledge. Tomorrow's economics is going to be economics of knowledge. Knowledge is going to be at the centre stage of everything that we do. Those nations will do not create knowledge societies will vanish into oblivion. The new markets are going to be knowledge markets. And the real wars are going to be fought in those knowledge markets and they will not be fought with the usual weapons like missiles and guns so on. They will be fought with the new tools of

information and knowledge. And some of these wars will be quite expensive. We have just fought a Kargil war because a country invaded our physical territory. The new wars will be fought because our knowledge territories, our intellectual territories are being invaded and those wars will be quite expensive. I don't know how many of you know, but there was a war that was fought between two companies in United States between Eastman Kodak and Polaroid Camera on a patent for an instant camera. It was settled for something like a billion dollars which is close to Rs. 4,000 crore, which is half of India's research and development budget. There was a winner and vanquished and the vanquished had to lose something like 6000 jobs, so these are expensive jobs. The question is how is India going to be prepared for the new wars that are going to be fought, the new issues that are going to emerge in this knowledge based world. There are new paradigms that are coming. The world's richest man was always conventionally linked with oil. You had John Rockefeller in the nineteenth century, you had Sultan of Brunei in the twentieth century but you all know who is the world's richest man today is. He happens to be a knowledge worker; the name happens to be Bill Gates.

It is very clear that the entire scene is going to be dominated by those people who are able to be assimilate knowledge, absorb knowledge, adopt knowledge and create knowledge based products. Many people say the next century is going to be the century of knowledge, many people say the next century is going to be the century of mind and it is the products of mind which are going to dominate the next part of the century. I do believe very strongly as a passionate Indian that if next century is going to belong to the century of mind, then India has a

legitimate right to lead. But, we will be able to lead only if we have proper mind, which is uninhibited, which is innovative. My deep concern is that that the 'I' in India for some time has not stood for Innovation it has by and large stood for Imitation, it has stood for Inhibition. And if you want to create that tall India 'I' think it is extremely important that we create an Innovative India and pledge that we move into next century that 'I' in India will stand for Innovation. How we will do that is a big challenge. How we are going to look into this entire issue of creating knowledge societies, creating knowledge industries, creating those materials, those products when knowledge comes at the centre stage. If you buy a kilogram of steel today 90 percent of it is material 10 percent of it is knowledge and technology but if you go and buy a Microsoft 98 Windows let us say 95 percent of it is knowledge and five percent of it is material. It is becoming very clear therefore, that in a final product, the mind and matter involvement are going to be extremely high. And in all these it is becoming clear that intellectual property and its understanding, its generation, its protection, its valuation, its exploitation, is going to play a very crucial role. I was very happy therefore when I was asked to speak about the issues related to intellectual property.

When you talk about intellectual property you talk about a variety of things. You talk about copyrights, designs, patents, geographical indicators, integrated circuit designs, trademarks; a whole range of things. Now you will find that if you look at this entire issue of creation of intellectual property and its protection, India has not done too well. In fact on an occasion when I was speaking at a science congress about 5 years ago I used the word 'patent illiteracy.' India is 'patent illiterate.' And

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the reason I used these strong words is: when one talks about illiteracy then one talks about the ability to read, ability to write. What do you mean by reading a patent by reading one means one reads in such a way that one is able to create a new invention, a new innovation. What will you mean by writing a patent. By writing a patent I mean that you write in such a way that nobody is able to bypass you. Unfortunately the awareness about this in our intellectual community is rather poor and I don't think that India can enter the next century confidently if we do not become strong in these issues. I remember there was a report called Nicholson report in 1983 and the Prime Minister Margaret Thatcher was then the Prime Minister of UK wrote a preface to that report. I'll quote from that. She said individuals generating new ideas whether in universities, companies, government research establishments or even in schools should take very seriously indeed the protection of these ideas. Now the central issue is what ideas should be protected, when they should be protected, who should exploit them, how and who should share the benefit.

The conflict today is the openness of scientific research and competitiveness in the commercial world and the problem is going to be how do we create systems in a way that encourages both research as well as its exploitation without creating unfair monopolies. The other issue that is coming up is the following: I remember I was listening to a lecture by Fredric Omair in a third world academy meeting Fredric Omair was talking about the North and the South. The North is that of haves and the south is that of have nots. The north is developed, the south is developing. And he said knowledge flows from north to south and wisdom flows from south to north. I remember making a

correction I said the knowledge does flow from north to south but the usable knowledge does not flow that easily from north to south because usable knowledge had the potential to create wealth and no nation will give that particular advantage to another nation excepting at a price. No corporation will give it to another corporation excepting at a price which can be very high. On the other hand whereas this stream of knowledge and usable knowledge from north to south is not as profound as you want to be, the flow of wisdom from south to north is rather free. That is a conflict that the third world has today because if you look at our traditional medicines, if you look at the knowledge of the communities which has been encompassed in the form of so called wisdom you will find that that gets hypothecated rather easily. I think in this issue itself there is a big divide and that is something that we need to tackle. If one looks at India one will find that we have had many lost opportunities because our value systems, lack of awareness, lack of industrial competitiveness, understanding the basic issue of equivalence of knowledge and wealth has created a problem for us.

In 1898 Sir J C Bose one of our greatest scientists had developed what is called a coherer. This coherer is at the heart of wireless. He did not patent it. What he did was to publish this idea. In fact he wrote the research papers and sent copies of this research papers to his former professors, both of whom immediately saw the value of his work. He actually said something I would like to quote: in May 1901 he wrote to his friend Rabindranath Tagore. He said the proprietor of reputed telegraph company came himself with the patent form in hand. He proposed to take half of the profit and finance the business into

the bargain. "This multimillionaire came to me begging. My friend I wish you could see that terrible attachment for gain in this country that all engaging lust for money and more money once got into the trap there would have no way for me." Exasperated by Bose's approach towards money two of his lady friends, British born Margaret Noble better known as sister Nivedita and American born Sarah Bull, on their own initiative obtained in 1904 an American patent in Bose's name. Bose however remained unmoved and refused to encash the patent. I think the irony of the situation seems to have gone unnoticed while in Nivedita we have a spiritualistic advocating the cause of patents and royalties and the physics professor dismissing the idea. The reason must be sought of course in their background. Nivedita was the product of Industrial Europe while Bose was the child of orientalised east with his own value system.

My friends, one respects this particular value system, even today it is very important. On the other hand I always believe that context decides the content. There was a particular context in which, Indians operated. The context has changed and the content has to change. If the knowledge era is going to come and conversion of the knowledge into wealth is going to be crucial I do believe we have to relook at many of these things. In 1898 we talked about a missed opportunity on wireless. It was Marconi who got the Nobel prize who got all the patents. It should have been Bose. In 1998 we started fighting the Basmati battle 1898 to 1998 has been a traverse from Bose to Basmati as far as India is concerned. I think we need to look at these issues rather seriously and change. I have many interesting patents here. One says it's a patent for refrigeration. It relates to some particular innovation in refrigeration. I have another patent here

#### R. A. Mashelkar

which talks about light intensity, self adjusting camera again some very interesting innovations. Can you guess who these patents belong to? They belong to Albert Einstein. He is known for his relativity and he is relatively unknown for his patents but even Einstein had understood the importance of patenting and protecting an intellectual property. I do believe that the time has come where our academic community or industrial community understands this particular issue. Of course it is very clear that if knowledge has to be converted into wealth. The process of innovation becomes important and in that entire process of innovation, patenting and protecting an intellectual property in different forms including design, is going to assume importance. If one looks at designs per se it is becoming very clear that our laws are antiquated. We are still governed by the Design Act of 1911. I just now told you about a big war that was fought and lost for something like Rs. 4000 crore because somebody had infringed on a patent. Do you know what are the penalties that you have to pay if you copy somebody's design, which is the product of his mind, and his intellect and creativity today? It is Rs 500. I think we need to re-look at that. I understand a new bill is going to come where this entire issue will be looked at. When it comes to design of course I was trying to seek a nice definition. I found that there was a well conceived concept or a well organised creative activity which services a specific purpose for the betterment of the human life, can be termed as a design, which is a very nice sort of definition. But I was looking also at this definition from the perspective of a patent office and I found that definition. It says "only the features of shape, configuration, pattern or ornament applied to any article by any industrial process or means

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whether manual, mechanical or chemical, separately or combined which in the finished article appeals to and is judged solely by eye," which appears a less prosaic definition but that is how the designs are protected.

We are in an age as I said where the influence of mind is being seen in all products. We talk about designer dresses, designer socks, designer ties, designer spectacles, designer shoes even designer hairdos, and of course we are taking about designer genes now, designer plants. Now this is where the real issue is going to come. Because we have created intellectual property systems where we expect that one size will fit everything. That is not so. The real conflicts that are going to come will be because of a few reasons. The first is of course when you talk about new products like electronic products. Their life is rather short. Their half life would be as little as six months, one year etc., whereas the life of the patent is rather long, should we have a uniform patent life — that is one issue. Secondly if you look at the old laws you will find that they were all designed for inanimate objects. When you talk about industrial design for instance you can give a sketch, a drawing, give a detail or material specification and the job is done. On the other hand we are moving from inanimate objects to animate objects and animate objects like human cells for instance or animals or plants cannot be treated in the same way as the inanimate objects and therefore there needs to be a fundamental thinking, a fundamental change. The third issue of conflict is going to be that we always looked at knowledge as was generated in formal systems of innovation. In laboratories people who wore white coats sat on the computers terminals and so on. But there is a whole range of knowledge systems; called parallel knowledge systems,

civilisational knowledge systems, community knowledge systems. What happens to those and there are fundamental issues which talk in terms of access to that knowledge, material transfer agreements, and benefit sharing agreements because the community knowledge cannot be just hypothecated. These are the issues that we need to tackle. For a country like India it is becoming absolutely clear that we will have to see trends and see where our competitive advantage lies.

It is very clear that the world is going digital. If the world is going digital we have set ourselves an ambition. We are saying that we will become an information technology superpower; we'll become a software superpower. When you see the list of top hundred millionaires in the country we expect that in the top five there will be some familiar names. Those familiar names do not exist. Out of these five, four belong to knowledge industry and three belong to information technology. I see young people today talk not necessarily of Bill Gates, they talk about Narayana Murthy. They remember that Narayana Murthy who started in 1981 with something like Rs.10,000 in Pune and his market capitalisation today is more than Rs.25 crore. It is more than that of Ambanis. So they see there is a chance we don't have to be born in the families of Tatas and Birlas we can make it too. But for that it is extremely important to realise that it is not just generation of knowledge but it is generation of usable knowledge which is protected and protectable, that will make the big difference. Bill Gates did not just happen like that. Similarly it is not information alone, it is insight which is going to matter, and that can come only through an intelligent inquiry and also for the protection of the information domain that you create. So these are fundamental ways in which the matters are

going to shift. It is also very interesting to note that the world is going to go not only digital but the world is going to go herbal. Today if you look at the herbal product market in the world you talk about 65 billion dollars. What is India's market share? What were the exports from India last year? 270 crore. What was the export from China? 14,00 crore, why? Because, they have been able to add the old and the new together bring in new science in the herbal research that they do, create innovative products, standardise them, package them and market them. This market is supposed to be 5 trillion dollars basically in 2020. What is going to be our market share? I think it is extremely important that we realise the importance of generating the intellectual property and protecting it. Between 1994-98 in the world, there were close to 2000 patents of herbal products out of which close to 890 were from China. What was our share, our share was nothing. We cannot get an entry. We cannot have mastery and dominance unless we become strong in the new digital world and new herbal world that is going to come. Then again India can occupy a major position.

Many people describe India as a rich country where poor people live. Our richness is our intellectual knowledge prowess, our biodiversity, our traditional knowledge but we have not been able to earn wealth out of it. It is extremely important that we learn how to create wealth out of it. I was looking at this entire issue of designs. I was rather touched by what I saw in a report that appeared in Times London 25 April, 1851, more than a century ago. It talks about India, and I will quote: It says turning to the class of manufactured articles we find the long established industry of the Indian peninsula asserting its excellence in a manner at once characteristic and extraordinary; the

same skill in goldsmiths work, in metals, in ivory carving, in pottery, in mosaic, in shawls, in muslins and carpets was attained by these ingenious communities which now practise them, ages and ages ago. Yet in these things when the nation of India has done well from time immemorial, they still remain unsurpassed. This is something they said in 1851. When we talk about made in India today, what is our image? I think that is something that we need to be seriously concerned about and therefore it is extremely clear that unless we make paradigm shifts and paradigm changes we are going to have difficulties. Looking at design for instance, one will have to realise that when the digital world is coming the information age is coming how do we bring in this issue of aesthetics of the information age in designs. The industrial revolution shifted the design activity to the drawing board as we all know. Now in the information age, CAD CAM is likely to shift the activity further into the computer labs as the links between the design activity and manufacturing will go on increasing. The conceptual and direct understanding of the process of manufacturing is likely to weaken further. With ever increasing complexities of tools the understanding of modern manufacturing processes is even more difficult now. It is time to review the design philosophy of the machine age and search for the new aesthetic expressions to express the aspirations of the information age.

The current trends in design thinking do indicate a shift from the machine age attitudes and design philosophy. If the next century is going to belong to century of mind and we have a legitimate right to lead. Because it is the mind where we are absolutely supreme. I have tried to give you some perspective on crucial issues of intellectual property. We do have problems of a weak intellectual infrastructure in terms of people who are able to generate competitive intellectual property and protect it. We need urgent action on this. We have a problem of adequate physical infrastructure. Today to get a patent it takes about seven years. We need to address this particular issue. We have lack of public awareness about the issues. We hear headlines which say turmeric is lost, neem is lost on so and so forth. The real issues are not being understood by people because at CSIR it was we who fought this particular patent when a wrong patent was given on the wound healing properties of turmeric. It was a rule based war. We provided evidence to demonstrate that the knowledge belonged to India and I am very happy to see that the patent was revoked. It was a small step from the third world but it made such a difference. It was the first such victory, first such challenge. Growing awareness has come as a result of this small step but what has become important is that this knowledge cannot be protected; our innovations cannot be protected, unless we create strong documentation of our knowledge. And we also realise that in the digital world this knowledge needs to be digitised so that it is accessible. Therefore there is a massive movement on this that we basically need to take; there is a big agenda that we have to have in order that we occupy our rightful place in this new knowledge millennium. I like to end by just recapturing what one of my friends said on the other day. He said the 20th century belong to IC. IC meant integrated circuit because it was integrated circuit which gave rise to electronics, electronics products, information technology, information revolution and so on. But he said the good news in that even the 21st century belongs to IC and that would be Indians and Chinese. I agree with him.

I agree with him because the next century is going to belong to Asia and India has a chance to lead. But in order for that to happen what we have to ensure is that that 'I' in India must stand for Innovation. It cannot stand on Inhibition, it cannot stand on Imitation. How do we do that is going to be the big challenge? We lost out not because we were colonised but because we colonised our minds. How do we free our minds? How do we start believing in ourselves? There is a very interesting definition of an Innovator. They say an Innovator is one who does not know that it cannot be done - how do we create these people who do not know that it cannot be done. The young generation I believe is the one who has to have this particular faith that there is nothing that we cannot do. There is another definition of the Innovator also, as one who sees what everybody sees but thinks of what nobody else thinks. I think that was the old India where we saw what the rest of the world saw but we thought of what nobody else thought — that was our new science that was our new philosophy we lead the world. I think we need to bring that glory back when we move into the new millennium and that we cannot do if we put sanctions on our mind.

I remember an interesting episode last year when we gave the Bhatnagar prizes, our PM Shri Atal Bihari Vajpai was there as the chief guest. We had a couple of minutes together after the function and this was soon after the May 11 nuclear tests and the sanctions had come. We were having a little discussion about the impact of sanctions on science and scientists and laboratories and I remember mentioning to him, that let the Americans bring the sanctions but we can't bring sanctions on our minds and as long as we don't put sanctions on our minds

there is nothing that anybody can do to India. I think it is that India that we have to basically create. India has a tremendous chance. I feel dangerously optimistic about India. If we look at 2015 demography is with us people say that 55 percent of population of India going to be under 20 years can you imagine — 55 percent less than 20 years goes to 70 crore young Indians. And this is happening where the demographic profile of the rest of the world is exactly different. I was in an Indo-German consultative committee and people where talking about the demographic shift and somebody asked them if your demographic shift is such that majority of your people are going to be 50, 60 and 70 and 80 then where are you going to innovate because innovation is the business of the young. They said will they remain economically strong but will buy innovation from India. It is that particular innovative India that the whole world is looking at. Let us not lose out on this tremendous potential advantage that we have in India and I think only thing one can do at the end of the graduation ceremony that let us take a pledge that 'I' in India will stand for Innovation, 'I' an IIT will stand for Innovation, 'I' an industry will stand for Innovation that 'I' in NID will stand for Innovation and that 'I' in I will stand for Innovation. If we do that I think we will and can create an India, which is absolutely incomparable and will find its rightful place in the comity of nations.



"I LOOK UPON ALL GRADUATING DESIGNERS HERE TODAY AS PROSPECTIVE ENTRANTS TO THE BUSINESS I AM IN. IT IS DIFFICULT TO COMMUNICATE THE PASSION AND EXCITEMENT THAT MEDIA AS A VOCATION OFFERS. I CAN ONLY ASSURE YOU THAT I KNOW OF NO ONE WHO HAVING JOINED THE PROFESSION HAS ACTUALLY LEFT IT. THERE IS NO RETIREMENT FROM THE MEDIA. I WISH EACH ONE OF YOU AN EXCITING FUTURE."

- Shri Rathikant Basu

# Media as a Vocation for Designers

onourable Chairman, Shri members of the governing council, faculty members, the class of 2001, ladies and gentlemen. I normally like to speak extempore but thanks to Shri Koshy's office reminders from compelled to put down my thoughts on paper so it's a bit of new experience and I hope you will forgive me if this address is a little boring. I think the evening has started off extremely well. I have been one of those who have been saying that the third millennium is the millennium of women, for women and today I was pleasantly impressed to see that of the graduating class the majority were women. Actually in this age of news and especially in television news no one should be allowed to say more than two three words basically a sound byte but since this is a formal occasion I hope you will excuse me if I take a few minutes.

Two features have dominated the global media landscape ever since mankind was exposed to the power of the printed word. One has been the relentless and inexorable march of technology and the other has been the fickleness and unpredictable behavior of audiences the world over. Even Arthur C Clarke could not have foreseen the awesome power that satellite technology would bestow on the broadcasters in the late 80s and through the last decade of the 20th Century. Satellite television was able to make a mockery of national political boundaries and artificial barriers to the flow of information erected by insecure totalitarian regimes leading eventually to a redrawing of the political atlas of a large part of the world while instant and powerful visuals of disasters like famine, floods and earthquakes spurred governments and stirred conscience of the

international community to provide relief to the affected people. This has happened in Africa, in central Asia and even in India the same medium has been held responsible for thousands of deaths in Mumbai and elsewhere after the destruction of the mosque at Ayodhya. I don't know how many of you remember the BBC visuals, which Doordarshan of course suppressed, but BBC broadcast to the world and which was seen in large parts of India. Governments which have tried to shield what they believe to be their fragile cultures have had to open their skies and deregulate their media. An example is the Indian government recent somersault on DTH (direct to home television). While control over content broadcast across national borders may have been difficult in the past, control of content posted on the internet is impossible. Since censorship of the internet is not feasible and since both audio and video can be transmitted freely over the world wide web, it is only a matter of time before governments have compelled to abandon any form of restriction on content. Would lifting of restrictions lead to greater permissiveness in society? The experience of the countries around the world is that media has always respected the sensitivities of the society they address. Even in India where till recently there was no control over content on free to air foreign satellite channels the societal norms for example those relating to obscenity have never been violated. The acceptance of new technology universally is now taking much less time than it did in the past. This is partly due to technology itself in the form of better communications and partly because social behaviour is changing. Witness the consumer response to technology in the automobile industry. We all know how consumers have rejected older models of cars which have been offered to

them in the Indian market. They all want the latest and the best.

Thus it took more than 20 years for India to take television into sixty million homes. It will take a fraction of that time for the personal computer to achieve a similar penetration even at twice the price. While technology has been enabling media to become global and allowing for the rise of the global brands like CNN and BBC World, while aviation technology has enabled more travel than ever before, people around the world are going back to their roots. Cheaper travel has enabled more people of Indian origin living abroad to visit their home in India. Cheaper digital satellite television has enabled viewers to watch programmes made in their own languages and about their own people. It is local television made possible by digital compression technology that will drive the next wave of the television penetration into small towns and villages. Typically audience shares of foreign channels in India stand at 1 percent or less than that of Hindi channels at up to 10 percent while that of local language channels like SUN TV and ENADU goes up to 50 percent in their local areas. The future of Indian television is therefore in local television. Few countries in the world have so many language groups offering such a large potential for the television software industry.

No discussion of the media is ever complete without a reference to the trends and audience preferences. Audience preference by its very nature is dependent on its composition. Gender, age socio economic category, linguistic groupings, all have an influence. But more than anything else it is the trend in society towards individual choice fuelled by the availability of scores of channels, not to mention alternative forms of leisure activity that give nightmares to media programmers. Who

would have believed a year ago that an interactive quiz programme would so capture the imagination of the people? Who in the early 90s would have guessed that Indian cricket could drive pay TV in India into such a lucrative business. Or for that matter round the clock news. Media lore is filled with stories of such inspired gambles by exceptionally gifted entrepreneurs. But for every hit there are six flops or so they say in the film industry and so even the most successful producers believe in Lady Luck. How will the new media affect the old there is no doubt that the internet will be the media of the future, especially when broad band connectivity becomes widespread. Text audio and video are already available on the net with the addition of inter activity and unlimited other applications. So will the TV set be displaced by the PC? Will future mobile phones substitutes PCs? While it is King Consumer who will decide, past experience shows that all media are in a sense interdependent. The electronic medias still uses print and outdoor to announce their programme, just as dot com ventures use radio and television to promote themselves. Each media creates its own domain and presents content in its own unique way.

For me it is a unique privilege to be here at your convocation. My association with the NID dates back to 1971 when as a enthusiastic deputy municipal commissioner, I had approached Dashrath Patel to design public conveniences for this city. There were hardly any in Ahmedabad at that time I am not going to spoil this occasion by telling you what happened to that assignment. However I continued my association over the years as Labour Commissioner for Gujarat I recall mediating in a strike by employees of NID when Ashoke Chatterjee was the director

### Rathikant Basu

more recently Vikas Satwalekar; not forgetting Nina and Amitabh designed the graphics and logo for the ill fated DD3 when I was at Doordarshan and for the more lucky Tara earlier this year. I look upon all graduating designers here today as prospective entrants to the business I am in. It is difficult to communicate the passion and excitement that media as a vocation offers. I can only assure you that I know of no one who having joined the profession has actually left it. There is no retirement from the media. I wish each one of you an exciting future.





"IN THESE TIMES, YOU WILL BE COMPETING WITH THE BEST IN THE WORLD. MY YOUNG FRIENDS, THE TASK BEFORE YOU IS NO DOUBT ARDUOUS - YEARS OF PROTECTIONISM HAVE SAPPED INDIAN COMPANIES OF THEIR CREATIVENESS AND EMPHASIS ON EXCELLENCE. HOWEVER, YOU MUST MOULD OPINIONS AMONG DECISION-MAKERS AND ENSURE THAT INDIA IS NOT SYNONYMOUS WITH COMPETITIVE COSTS BUT ALSO WITH HIGH QUALITY. BE IT THE IT COMPANIES OR THE PHARMACEUTICAL COMPANIES, ONE SEES INDIAN COMPANIES INCREASINGLY ESTABLISHING THEIR PRESENCE ACROSS THE GLOBE. THEY ARE YOUR NATURAL ALLIES. AS THEY BUILD ON THE BRAND OF INDIAN INC, YOU MUST BE THERE ASSISTING THEM IN DOING SO."

— Shri N R Narayana Murthy

The Need for Excellence

y felicitations to you on this happy occasion; it is indeed a privilege for me to be here on this day. My young friends, graduation day in many ways signifies that you have indeed joined the ranks of adults; you are now entitled to a lifetime of paying taxes and bills of innumerable varieties. At the same time, the opportunities before you are endless. Your illustrious institution has equipped you to realise your dreams — it is yours to choose.

During your stay here, you must have frequented the Sabarmati Ashram and been inspired by that place. On this momentous day of your lives, I want to ask a fundamental question which is related to the dreams Mahatma Gandhi and the other founding fathers of this nation had for all of us. The question is have we been able to confront the fundamental problems that confront this country, have we been able to wipe the tears from the eyes of the poor, have we been able to solve the problem of poverty. In order to do all that there is no doubt that we have to excel in what we do and compete in the marketplace. We have to become excellent in one or two areas in the global bazaar so that we have competitive advantage in what we do. In that context it is very relevant to ask this question. Why is it that independent India does not boast of any product of international class and with worldwide recognition? Surely, we have many successes including a vibrant democracy, a free press and an independent judiciary. We have the third-largest pool of worldclass scientists and engineers, and designers like you people and gained self-sufficiency in food grains in addition to building dams, rockets and satellites. However, there is no single field where we can confidently say we are the best in the world.

This question is important to you as design plays a crucial

role in the success of any product — be it ceramics, manufactured goods or software applications. In fact, I believe that in any technology, as it matures, in that the focus shifts to the human aspects of technology. Look at information Technology (IT) for instance. In the past, we were more concerned with optimal use of hardware rather than with user friendliness and ease of software development. Today's computers have 66,000 times the computing power, at the same cost, as the computers of 1975. Thus, improvements in computing power over the years have led to increasing emphasis on effectiveness, on code and design reuse, and ease of use for the customer. We have realised that unless the human aspect is addressed, one cannot deliver effective solutions. In fact, Graphical User Interfaces (GUls) have become the industry norm. The ongoing convergence of IT and consumer electronics portends the emergence of various user-friendly intelligent goods. Therefore, design will continue to play an important role in this technologydriven world.

A crucial factor for success has always been excellence — whether it is in business, sports or arts. Somehow, we have not paid enough attention and importance to excellence. Perhaps, a reason for this was the command and control economy in the past. In those times, there was no incentive for improvement as the License Raj ensured protection for the incumbents.

Political considerations mean that successive governments were forced to reiterate their belief in socialism, as it was understood to be. Luxury was looked down upon — it was more politically correct to provide basic accommodation rather than to construct an imposing building. This by itself would be executed as the travails of development with its emphasis on

quantity rather than on quality. However, what was disturbing is the fact that there is a mindset equating high quality with exorbitant costs. Thus, the government felt reasonably justified in delivering substandard goods and services to its citizens. In all, we lacked confidence in our ability to provide world-class goods and services to our people.

Success in independent India was then due to whom you know rather than what you can do. The pervasive bureaucracy led to widespread suspicion of any government initiative among the citizens. The use of the 'tender' process for awarding contracts wherein the prime consideration was cost became widespread.

Another aspect of our development was the belief that consumer goods are, at best, a necessary evil. The Mahalanobis model emphasised capital goods vis-à-vis consumer goods. The socialistic system brought many other vices into the country. Perhaps, the most important of these was the lack of accountability — people who ran the government and the public sector were accountable to none but to themselves. As the future leaders of this nation and even the world you have the responsibility, so rightly summed up by Henry Ward Beecher as: Hold yourself responsible for a higher standard than anybody expects of you. Never excuse yourself.

The liberalisation of the Indian economy in the early 1990s changed the context. Indian companies could now compete with the best in the world. In fact, liberalisation laid the foundation for the success of several industries including the Indian software industry.

As we move ahead, forces of globalisation and technology are reshaping our world. Global trade now accounts for nearly

25 percent of world GDP. Privatisation has become a global phenomenon with nearly 100 countries pursuing a privatisation agenda. The Internet has grown to include more than 450 million users. The mapping of the human genome will possibly lead to the development of new categories of drugs and the enhancement of quality of our lives. Thus, there are fundamental forces at work. In fact, the world you are stepping into is vastly different from the one even ten years ago.

In these times, you will be competing with the best in the world. My young friends, the task before you is no doubt arduous — years of protectionism have sapped Indian companies of their creativeness and emphasis on excellence. However, you must mould opinions among decision-makers and ensure that India is not synonymous with competitive costs but also with high quality. Be it the IT companies or the pharmaceutical companies, one sees Indian companies increasingly establishing their presence across the globe. They are your natural allies. As they build on the brand of Indian Inc, you must be there assisting them in doing so.

Pursue excellence. You must always aim high and dream big. Likewise, excellence in execution must be your core belief. Remember, excellence can be acquired only by relentless training, frank feedback and constant self-improvement. Moreover, you must always remember that excellence can prosper only in an environment where it is recognised and rewarded. Strive to create such an environment at your work place because many of you will become the leaders of tomorrow.

Your dreams and your enthusiasm are of utmost importance. As you step into the work life, ensure that you remain young at heart — keep yourself open to new ideas open to

### N R Narayana Murthy

criticism, open to feedback. This is something that is woefully lacking in the Indian psyche among all of us. This is something which you of the next generation will have to develop. If we in India have to become a nation that matters to the global bazaar. Never accept the status quo. Further, when you leave this place, do not forget your dreams. The ability to dream big is the biggest force that you will ever have. You must endeavour to be the best in the world. As Harold Taylor said: The roots of true achievement lie in the will to become the best that you can be.

Finally, remember that words mean nothing unless backed up by action. To borrow the words of Henry Ford Jr: You can't build a reputation on what you are going to do; you build it on what you have done. My young friends, work hard, build yourselves a great reputation, and get to work as soon as you can — the nation needs you,





"ALL ECONOMIC PROGRESS COMES FROM A SINGLE SOURCE INCREASED EFFICIENCY OR PRODUCTIVITY. IT IS NOT OFTEN
REALISED, BUT TO MY MIND, THE SCOPE OF DESIGN IS AS IMPORTANT
AS TECHNOLOGY AND MANAGEMENT IN PROVIDING THE EFFICIENCY
AND PRODUCTIVITY THAT LEADS TO ECONOMIC PROGRESS. GOOD
DESIGN CUTS COSTS, IMPROVES FUNCTIONALITY, CREATES A DESIRE
TO POSSESS AND PURCHASE AND PERMITS TECHNOLOGY TO BE
TRANSLATED INTO SUCCESSFUL PRODUCTS THAT HAVE CONSUMER
APPEAL. DESIGN, THUS TOGETHER WITH TECHNOLOGY AND MANAGEMENT IS A DETERMINANT OF PROGRESS."

- Shri Adi Godrej

Spread the Gospel of Design

feel privileged to be asked to be the convocation speaker at the 23rd Convocation of this great institute. Over the last few decades the National Institute of Design has established itself as the pre-eminent Institute of its kind in the country and has established an international reputation. It is a pleasure to be in Ahmedabad once again. When I was embarking on my career in the sixties, this city was establishing an enviable reputation as a centre of intellectualism and learning, especially in new directions. The Indian Institute of Management and the National Institute of Design were just two examples. I was, therefore taken aback at the recent developments in Ahmedabad. I trust the city will once again rise to its glory and relegate its recent past to the dustbins of history. When I mentioned to my wife, who is a designer that I was to deliver this address, her reaction was, "why have they asked you?" I had to extricate myself by replying, "They must have felt that some design sense must have rubbed off, spending a lifetime with you."

All economic progress comes from a single source — increased efficiency or productivity. It is not often realised, but to my mind, the scope of design is as important as technology and management in providing the efficiency and productivity that leads to economic progress. Good design cuts costs, improves functionality, creates a desire to possess and purchase and permits technology to be translated into successful products that have consumer appeal. Design, thus together with technology and management is a determinant of progress.

Design has another aspect. The manifestation of style, elegance and aesthetics, through good design brings to the fore the best in mankind in terms of motivation, inspiration,

aspiration, pride and achievement and can charge and change societies and nations alike. I can never forget how inspired I felt when I first glimpsed the Taj Mahal or the Pyramids of Giza or stood in the Aiya Sofiya in Istanbul.

I do, therefore, hope that the National Institute of Design and its graduates will not be satisfied by just being great practitioners of design, but would also become passionate leaders in spreading the gospel of design and the role design can play in the transformation of our country into a developed one in twenty to thirty years.

You are graduating today from a superb educational institution. You are a select lot. Just being admitted to such educational institutes signals your tremendous capabilities. Spending the four or two and half years here as the case may be, trains you extremely well in your profession. While producing more and more immensely capable and highly skilled professionals like you will lead to India's success, what will really signal the difference is how many young Indians such as you will transform yourselves into passionate leaders in your field.

I would like to share with you five hindsights. I know you do not want sermonising from people my age, but if what I say makes some sense to even a few of you, I would feel my task satisfactorily performed.

Go for leadership. Leadership is about doing the tough things, which need to be done, and no one else wants to do, not just the popular ones. It is about telling the truth about how things are, not what people want to hear. A leader needs to think the future backwards, not the present forwards. He or she must have a clear vision of the future and then plan how to achieve it backwards through full involvement of his or her team.

Leadership development through constant exposure to new ideas is important. Your education is not over. Please don't stop learning. How you do things is more important than what you do. Doing things is more important than what you do. Doing things right is more important than doing the right thing.

Some parents among you may not like what I am about to say. Do not listen to those who say, "It is not done that way." May be it is not, but may be you will. Do not listen to those who say, "You're taking too big a chance." If he did not take a chance, Michelangelo would have painted the Sistine floor and it would surely be rubbed out today. Most importantly, do not listen to yourself when the little voice of fear inside rears its ugly head and says, "They are all smarter than you out there. They are more talented, they are taller, luckier and have connections." Give any credence at all to that voice, and your worst fears will surely come true. Do not turn over power easily. Do not make those who speak with a louder voice automatically right. Respect is one thing, submission another.

Play to win, but don't play dirty. As you grow older, you will find that things change from absolutely to relative. When you are very young, it was absolutely wrong to lie, cheat or steal. As you get older you will be tempted by the system, especially when you look around in India, to think in relative terms. This is wrong. Preserve your values as much as you can. If you avoid lying, cheating or stealing, you will not have to remember whom you lied to, how you cheated and what you stole.

As Theodore Roosevelt said, "DARE MIGHTY THINGS." Have stretch goals, goals you don't yet know how to achieve. Learn to pick yourself up every time you fall, but also earn to constantly raise the bar. Stretch, more stretch and even more stretch should

be your motto. Make your vocation your vacation. No one can be effective if they do not enjoy what they are doing. If you are not enjoying your job, either change yourself or change the job.

Each one of you will soon be in a position of leadership. How you grab the opportunities of such potential will, to a considerable extent, impact your individual growth and success. How thousands of the educated youth of this country grab opportunities in leadership development will go a long way in determining the future of our nation. Unless we are united in a thirst for achievement, in what is known as the killer instinct in sport, India will not achieve its destiny. I am confident that talented and well-educated youth like you will fully grab the opportunities to propel India into a meaningful and purposeful future in the 21st Century.



Speaker Profiles

### Speaker Profiles

# Ravi J Matthai

Prof. Ravi J Matthai (B.A. Hons, Oxon) worked in industry as a senior executive for eleven years, after which he moved to the education profession in April 1963 as a Senior Professor at the Indian Institute of Management, Calcutta. While with IIMC, he was also Visiting Professor at the Massachusetts Institute of Technology (USA) from February 1964 to December 1964. Prof. Matthai was invited to take over the Indian Institute of Management, Ahmedabad, as Director, in August 1965 and continued in this capacity until September 1972 when he relinquished the Directorship, but continued to work as a professor in the same institution. A member of the Second Press Commission appointed by the Government of India and associated with many corporate, educational and research organisations, Prof. Matthai was also involved in an action-cum-research project on institution building, and experimented with linking rural education with development. Prof. Matthai was a guiding force in NID's experiments in organisation, and in the application of industrial design to community needs, through 'The Rural University'. He was a member of the Governing Council of the Institute from 1974 until his untimely demise in 1984.

# Umashankar Joshi

Born in 1911 at Bamada, a village in Idar Taluka in Gujarat, Dr. Umashanakar Joshi grew up in an atmosphere of hills and festivals. Dr. Joshi was initiated into the freedom movement, spending the night at Sabarmati Ashram on the eve of the Dandi March. In 1943, he graduated in economics and later completed his postgraduation in literature. His life as an author had commenced by this time, including the publication of two poetical works, Nishith and Vishwa Sant.

Dr. Joshi received the coveted Gujarati literary award Ranjitram Suvarna Chandrak in 1936. Dr. Joshi took up instruction in literature at the post-graduate level at the Gujarat Vidya Sabha till 1946, and continued his prolific output of poems, plays and essays. In 1947 he started Sanskrit, a Gujarati literary magazine and continued as its editor until his death. He was appointed Director of the University School of Languages, Gujarat University, in 1955. The following year, he became the Dean of Studies. Dr. Joshi was appointed Vice-Chancellor of Gujarat University in 1966, a position he held for two successive terms. At its convention in Delhi in 1966, the Gujarati Sahitya Parishad elected him its President. The following year, he was awarded the Jnanpith. Dr. Joshi converted his award into a trust for the publication of translations of literary works from other Indian languages. He became a member of the Rajya Sabha, and in 1978 became the

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President of the Sahitya Akademi. As a tribute to his erudition and scholarship Dr. Joshi was appointed Chancellor of Vishvabharati University at Santiniketan in 1976. He passed away in December 1988.

### Keshub Mahindra

Born in 1923 in Simla, Keshub Mahindra joined Mahindra & Mahindra in 1947 after completing his studies in Pennsylvania (USA). Since that time he has helped develop and diversify the manufacturing activities of his company, which today extends from India to several continents. Shri Mahindra has also been connected with a wide range of corporate activates in India and with professional and educational institutions. He has served as President of the Associated Chamber of Commerce and Industry, and as Chairman of the Indian Society of Advertisers. Shri Mahindra was closely associated with the Indian Institute of Management, Ahmedabad, of which he was Chairman for two years.

Shri Mahindra is one of the few corporate titans who have both witnessed and participated in India's industrial transformation. During his five decade long business life, he has been chairman of companies as diverse as Union Carbide, Indian Aluminium, Remington and Otis Elevator. He is vice chairman of Housing Development Finance Corporation Ltd. And a director in several companies including TISCI, Tata Chem, Bombay Dyeing, Bombay Burmah, Atul Ltd, IDI Ltd, Infrastructure Lease Financial Services Ltd, etc.

# Ishwarbhai Jivaram Patel

Born in 1934, Ishwarbhai Jivaram Patel commenced his career in the Sarvodaya Movement at Mansa, Gujarat in 1955. Soon thereafter his interest in the problems of rural health and sanitation took him to Bombay, and in 1961 he joined the Safai Vidyalaya (Sanitation Training Institute) run by the Gandhi Smarak Nidhi at Vyara in Gujarat. He was appointed Principal of the Safai Vidyalaya at Ahmedabad in 1969 and is the Director, Safai Vidyalaya Environmental Sanitation Institute, Gandhi Ashram. Serious experiments to develop new designs and systems in community sanitation were started in 1959 at the Safai Vidyalaya. In Gujarat alone 200,000 water-borne latrines designed by Shri Patel have been constructed and over 2.2 million in the entire country. This new design has been introduced into the curriculum of engineering and public health courses, and has been accepted in many rural areas. Apart from its social impact, the latrine designed by Ishwarbhai Patel helps to raise sanitation levels, reduces costly drainage systems and dependence on abundant water supply, and avoids pollution problems. It is simple enough

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to be set up and operated without technical assistance or external energy. Attached to a biogas plant, it provides a fuel source to biogas units.

Ishwarbhai Patel's design of night-soil disposal systems has also received international recognition through the ICSID Philips Award for Design in Developing Countries, which gave its Diploma of Merit to Shri Patel in 1978. His current activities in rural sanitation extend to 2,700 villages in Gujarat alone, and to internationally assisted projects in Tamil Nadu, Bhutan and elsewhere. His expertise is today drawn upon by government and municipal authorities throughout the country, and by UNICEF, WHO, and IBRD and other world besides. Shri Patel is also Padmashri and President of the Gujarat Harijan Sevak Sangh.

### R K Laxman

R L Laxman is the political cartoonist of The Times of India. A graduate of the University of Mysore in Philosophy, Economics and Politics, he had no formal training in fine arts and is entirely self-taught. Cartooning fascinated 'Laxman' from an early age. In his student days he established a reputation and a market for his free-lance work in many periodicals. After graduation he experimented briefly with animated cartoons before joining the Free Press Journal in Bombay as its political cartoonist. Six months later, he left to join The Times of India, where has been political cartoon. Both feature on the front page of his paper. In addition he freelances for many other journals in The Times of India group and has written short stories, essays and travelogues. Eight volumes of his pocket cartoons have been published so far. Laxman is the author of the novel Sorry, No Room and a book of essays, stories and travelogues entitled Idle Hours.

This devastating critic of the establishment is the recipient of the Padma Bhushan and many other honours and awards including the Horniman Award for Journalism, The Durga Ratan Gold Medal for cartooning, and the honorary degree of Doctor of Literature of the University of Marathwada. If the cartoon has come into its own as a political and social force in India, Laxman's is the name most associated with this phenomenon. Laxman's cartoons have become a part of the nation's conscience. They expose and deflate the pompous and indifferent, while helping thousands of Laxman's countrymen to laugh at their own foibles and to bear the daily burdens of Indian life with a smile.

### Leading Lights on Design

### S Guhan

Shri S Guhan has been Professorial Fellow in the Madras Institute of Development Studies since 1979. He entered academic life after voluntary retirement from the Indian Administrative Service which he entered in 1955 after securing the first rank in the all-India IAS examination that year. Whilst in the civil service, Shri Guhan held various positions in Tamil Nadu, where he was the Finance Secretary during 1974-1978, and later Advisor to the Chief Minister of Tamil Nadu (1989 – 90) and in New Delhi in the Ministries of Finance, Planning and Industrial Development. An assignment as Special Assistant to the Union Minister for Industrial Development brought Shri Guhan into contact with NID during an important phase in its history in the early 1970s. Earlier, he served in Washington as India's Alternate Executive Director on the Board of the World Bank between 1964 and 1968. In 1978 he was appointed Senior Economist to the Willy Brandt Commission on International Development Issues at Geneva. In the course of his career, he served as a consultant to many UN and Bretton Woods agencies.

Shri Guhan's main field of interest is the Indian rural economy with special reference to Tamil Nadu. Keenly interested in the arts, he is a member of the Executive Committee of Kalakshetra in Madras and was a moving force in efforts which culminated in the film on Smt. T Balasaraswati by Satyajit Ray. Shri Guhan's untimely demise in 1988 robbed the country of a committed commentator on, and interventionist in, India's development experience.

# Shyam Benegal

An internationally renowned film-maker and spokesman for quality in Indian communications, Shyam Benegal was born in 1934, the son of a professional photographer of Hyderabad, where he received his post-graduate degree in Economics at Osmania University. An early interest in film resulted in home movies at the age of twelve with his father's hand-cranked 16 mm camera. While a student at the University, Mr Benegal founded one of Hyderabad's first film societies. He moved to Bombay to take up a career in advertising, starting as a copywriter and film assistant. Mr Benegal worked in advertising agencies for sixteen years, making more than six hundred commercial shorts. His apprenticeship in film later included several documentaries and short films, and he worked as associate producer on an American television channel as a Bhabha Fellow. He came into prominence with his first feature film, Ankur, made in 1974, which won several awards. This

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was followed by a body of work of great distinction, which has included such films as Nishant, Manthan, Bhumika, Junoon, Suraj ka Satvan Ghoda and Sardari Begum. the Indo-Soviet co-production on Jawaharlal Nehru and a documentary film on Satyajit Ray. He has also produced movies for various government organizations and a 53 episode television series on Jawaharlal Nehru's Discovery of India called Bharat Ek Khoj. He is also a respected documentary filmmaker, and a recent endeavour in this direction is a cinematic study of Gandhi in South Africa: thus the Making of th Mahatma.

Mr Benegal headed the Governing Council and taught at the Film & Television Institute of India (Pune), and was a Director of the National Film Development Corporation, and runs his own production company for advertising and documentary films. He continues to be an influential presence in Indian film circles.

# K G Subramanyam

Painter, muralist and scholar, K G Subramanyam was born in 1924, and educated at Presidency, College, Madras, and at Kala Bhavan, Santiniketan, under the tutelage of eminent artists like Nandlal Bose, Binode Behari Mukherjee anf Ramkinkar Baij. Subsequently, he spent two years at the Slade College of Art, London, on a British Council Research Scholarship. This exposure to the West and Modernism found a synthesis in his work, essentially rooted in an indigenous folk tradition. Over the years, Prof. Subramanyam has participated in numerous exhibitions held in many countries and has been the recipient of prestigious awards. His one-man shows held in Baroda, Bombay, New Delhi and New York, have been highly commended, and his paintings have found a place in important collections both in India and abroad, including the National Gallery of Modern Art, and the Lalit Kala Akademi, New Delh. Mr Subramanyam is known for his constant experimentation with new mediums. He has also executed special murals for a number of exhibitions. In the course of his professional career, Prof. Subramanyam has worked with the Faculty of Fine Arts, Baroda, and with the All India Handloom Board. Currently, he is Professor of Painting and Head of Department of Painting and Design, Kala Bhavan, Visva Bharati, Santiniketan. Prof. K G Subramanyam has written and illustrated several children's books and has contributed articles, papers and reviews to leading magazines and journals.

# Nikhil Chakravartty

Born in 1913, Nikhil Chakravartty was educated at Presidency College, Calcutta, and at Merton College, Oxford. He started his career as a lecturer at Calcutta

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University and subsequently he turned to serious journalism, a profession to which Shri Chakravartty has brought national and international distinction for the range and quality of his work and his rare humanism. His chosen profession has taken him all over the world. During World War II and after, he was a special correspondent for People's War, People's Age, Allied Labour News and the Daily Worker. Later, he served as a member of the senior editorial staff of the periodicals Crossroad and New Age. He founded the India Press Agency in 1957 and was editor there for several years. In 1962, he founded Mainstream, of which he was editor for several years. Shri Chakravartty has served on many professional bodies, including the News Agencies Recorganisation Committee of the government of India, and the Press Commission. He was the inspiration for and Chairman of the Namedia Conference of non-aligned nations in 1983, and has been Chairman of the Namedia Foundation since 1984. His articles on current affairs appeard regularly in The Times of India and the Telegraph. A most seasoned voice in Indian journalism, Shri Chakravartty was an undeclared social rebel and a revolutionary in thought and action. Shri Chakravartty was associated with NID's development and directions for several years, closely assisting the Institute's outreach efforts for design awareness.

## Kirit S Parikh

Kirit Parikh, Director of the Indira Gandhi Institute of Development Research, Bombay, was born in 1935. After his graduate and postgraduate education at Gujarat University and at the Indian Institute of Technology, Kharagpur, he obtained his Doctorate in Engineering from the Massachusetts Institute of Technology, where he worked as a Research Associate for some time. Professor Parikh was Professor of Economics at the Planning Unit of the Indian Statistical Institute, New Delhi, from 1967 to 1980, and Director of the Programme Analysis group of the Department of Atomic Energy, Bombay, from 1970 to 1972. He was leader of the Food and Agriculture Programme, a large international collaborative research programme of the International Institute of Applied System Analysis (IIASA) in Austria from May 1980 to September 1986. In the course of his distinguished career he has worked as consultant to various civil engineering firms.

Professor Parikh is the author and co-author of several manuals and books and of a wide range of articles. He has been, at various times in the past, a member of the National Fuel Committee, National Committee on Environmental Planning and Coordination, and the National Committee on Science and Technology of the

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Government of India. In 1978 he was the recipient of the Vikram Sarabhai Award for outstanding research in Systems Analysis and Management Sciences.

# Kapila Vatsyayan

Dr. (Smt) Kapila Vatsysyan, is an M.A. in English Literature from Delhi University, an M.A. of Michigan University (U.S.A.), and a Ph.D. of Banaras Hindu University, by Rabindra Bharati University and Holyoke College (U.S.A.). She is former Secretary, Department of Arts, Government of India, and former Secretary to the Government of India in the Ministry of Education. A recipient of the Jawaharlal Nehru Fellowship, and of other prestigious awards, Dr. Vatsyayan has had a lifelong interest in literature, music, dance and the arts, and has studied under leading exponents of dance. She has been on the faculty of the universities of Delhi, Pennsylvania, Colombia, and Berkeley. She has participated in UNESCO seminars for many decades.

She was founder member of many educational and cultural institutions in India. She is the author of 15 major publications on cultural policis in India, including Classical Indian Dance in Literature and the Arts and The Square and the Circle of Indian Arts. Her books have been recognised as pathfinders and conceptual models for interdisciplinary and cross-cultural research.

Dr. Vatsyayan has helped to evolve a policy framework for programmes of art history, education, and cultural awareness. She has also initiated the Government of India's International Cultural Relations Programmes, and held charge with the special responsibility of establishing the Indira Gandhi National Centre for the Arts in New Delhi. This is a unique centre for analysis of the theory and practice of the arts, and the textual and oral traditions of many diverse cultures. Its programmes will be international, multidisciplinary and cross-cultural in character. She is currently the President of the India International Centre.

### Yash Pal

Prof. Yash Pal, who retired as Chairman of the University Grants Commission (UGC), has had a long and distinguished career. He was Chairman of NID's Governing Council until 1990 and has been closely linked with the institute since his years in Ahmedabad, as Director of the Space Applications Centre (ISRO) between 1973 and 1980.

After completing his post-graduation in Physics at Punjab University in 1949, Prof. Yash Pal joined the Tata Institute of Fundamental Research. In 1958, he obtained his Ph.D. degree in Physics from the Massachusetts Institute of

Technology. He has been visiting Professor at the Niels Bohr Institute (Denmark) and at the University of Science and Technology and Chief Consultant, Planning Commission of India. In addition, Prof. Yash Pal held several prestigious positions in national and international committees, boards and corporations. He is well known for the Yash Pal Committee which was set a national advisory to look at the academic burden on school students.

Prof. Yash Pal specialised in the field of cosmic rays, high-energy physics, astrophysics, science education, space technology, and communication for development. In 1976, he was awarded the Padma Bhushan by the Government of India for his contributions to science and space technology. In 1980, he received the Marconi International Fellowship Award 'to recognised wise and humane leadership in applying modern communications technology to meet the needs of isolated rural villagers in India'. This is the highest international award in communication.

Prof. Yash Pal has published numerous papers in scientific journals and has made significant contributions for development, and has proposed new ways of using modern technology, including space technology, in ways appropriate for developing countries. He has written extensively on issues of science and society, especially on the need for science to form an integral part of human living not only in terms of providing tools and techniques for doing things but also to influence human values, ethics and consciousness. Prof. Yash Pal is engaged in an unusual and ambitious proposal for mass mobilisation of India's human resources towards the eradication of illiteracy.

## Laurie Baker

Laurie Baker was born in England in 1917 and studied architecture at the Birmingham School of Architecture, from where he graduated in 1937. He has lived and worked in India for over forty years. Laurie Baker's name is synonymous today with architectural service to communities which lack access to high-cost materials and technology, and with design as a profession committed to those most in need. As a freelance architect, he has designed and constructed buildings all over India wherever these were needed and wherever his services were requested, not restricting himself to a particular architectural genre. He has build fishermen's huts, computer institutes, private homes, hostels, hospitals, churches, technical institutes, auditoriums, film studios and even tourist centres. He has always made it a point to use local material and local skills, in order to minimise costs, keeping embellishments to the barest minimum. Over the years, he has

evolved his own distinctive style of architecture - a style, which is greatly appreciated for its elegance, simplicity and practicality. He has consciously stayed away from mainstream commercial architecture.

Laurie Baker has always been interested in social issues. He has worked for leprosy institutions in India, in hill villages of Uttar Pradesh, and amongst the tribal people of Peerumede in Kerala. He has served on the Governing councils of NID and HUDCO, and on the Working Group on Housing of the Planning Commission. He has also served on several expert committees both at the national and state level. He was honoured by the Royal University of the Netherlands in 1981, for outstanding work in Third World country. He received the Padma Shri from the Government of India in 1990. Laurie Baker has lived in Kerala since 1966, and has designed numerous buildings in the state, which he has made his home.

# Arabinda Ray

In a career that has spanned over forty years of innovative activity in Indian engineering marketing and management education, Arabinda Ray has worked to realise his intense understanding of what professionalism must mean if this nation's managers are to successfully blend global confidence with local relevance. Born in 1930 to a family closely influenced by Rabindranth Tagore's humanistic ideals, Arabinda Ray was educated to Calcutta's St. Xavier's School and Presidency College before joining the packaging industry in 1951 as a trainee in the multinational Metal Box Company. Twenty years later, he moved out of his position as MB's Deputy Managing Director, into the public sector as Custodian of the Indian Iron & Steel Company and Director, Steel Authority of India Ltd. Over the next 15 years. Shri. Ray held top management position GKW, Warren's and GEC.

Well before design management was to be accepted as an attitude and as a discipline. Arabinda Ray helped establish at Metal Box India an industrial design system which anticipated the basic precepts of design management enunciated in the West three decades later: creative teamwork by design, engineering and marketing professionals within a management environment sensitised to design as a key ingredient for corporate success. Arabinda Ray is also founder member of the Indian Institute of Packaging and was India's sole delegate at the founding of the Asian Packaging Federation in Japan. He has been on the board of governors of the National Institute of Bank Management and a member of the Executive Council of the Institute of Financial management and Research, Chennai. He has authored several management books such as the Indian Manager in Search of

Style, The manager Beyond the Organisation, The Indian Manager Still in search of Style and Fifty Years of Indian Management.

## Abid Hussain

One of India's most distinguished civil servants, Shri Abid Hussain's career reflects three decades of service in key sectors of national and international administration. Born in 1926, Shri Hussain's experience spans that of District Collector of Vishakhapatnam in his early IAS years to his appointment as Ambassador to the United States, a position he held between 1990 and 1992. At present Vice-Chairman of Rajiv Gandhi institute of Contemporary Studies (New Delhi), Shri Abid Hussain has served as Secretary of Heavy Industries and of Commerce, before taking over as Member of the Planning Commission in 1985. Issues of international commerce and trade have been a key interest for Shri Hussain, including his attachment as Chief of Industries, Technology, Human Settlements and Environment to the UN Advisor to Turkey on Community Development, UN Regional Commission of ESCAP (Bangkok), and as Chairman of special Committee established by the Government of India on matters of trade policy, export, science and technology, textile and development of the capital market. He helped negotiate India's agreements with some of its major trading partners (including the USA, the former USSR and China) and spearheaded important Indian initiatives in international trade, industrial development policy and the transfer of technology. Among the many positions Shri Hussain has held are the Chairmanship of the Indian Institute of Foreign Trade where he is currently professor emeritus and of the Indian Institute of Management, Bangalore. His association with the National Institute of Design began when as Joint Secretary in the Ministry of Industrial Development he helped to steer the landmark recommendations of the Thapar Review Committee on NID, in 1973.

Shri Abid Hussain was honoured with the Padma Bhushan in 1988. Later he was India's ambassador to the United States. Dr. Hussain has been special rapp-porteur to UN on Freedom of Opinion and Expression, a member of the council of Foreign Relations, New York. He is now member of Asia Society, New York.

# I G Patel

An economist acclaimed the world over, Dr. I G Patel has been contributing to the economic policies of India-and the world-for nearly half a century. The community of the National Institute of Design is particularly privileged by his association with it as one of its governors since 1992.

Born in 1924, Dr. Patel studied at the University of Bombay, and at the Universities of Cambridge, UK and Harvard, USA. He has made his mark both as an academician and as an economist. His distinguished career spans a period of over four decades, from the time when he started as Professor of Economics and Head of the Department, University of Baroda. He has held several prestigious posts since then, including that of Alternative Executive Director for India on the Board of Directors of the International Monetary Fund from 1958 to 1961.

Among the several other important positions he has held, the most notable ones were those of Chief Economic Advisor to the Government of India; Secretary, Department of Economic Affairs, Government of India; Deputy Administrator UNDP, New York; Governor of the Reserve Bank of India; Director of the London School of Economics and Political Science and the Director of the Indian Institute of Management, Ahmedabad. On several occasions, he has served as member of U N and other International & National Commissions related to Monetary Reforms, Development, Planning and Research. He was Chairman of the Aga Khan Rural Support Programme and Honorary Advisor, Planning, Government of Gujarat, and Member in the International Commission on Global Governance. Dr. Patel has to his credit several publications on economic policies and economic development.

Dr. Patel was awarded the nation's second highest honour, the Padma Vibhushan in 1991, and an Honorary Knighthood (KBE) by the Queen of England in 1990. Recently the M S University, Baroda, had made him an honorary doctor of literature.

## Gerson Da Cunha

In a prolific career in the field of communication, Shri Gerson Da Cunha's contribution has spanned the worlds of journalism, advertising and development communication. A person of rare insight and sensitivity, he is the ultimate communicator, equally effective in the disparate environments of advertising and that of development.

A graduate of Bombay University, he started his career in 1950 with the Press Trust India as a reporter, sub-editor, correspondent and feature writer in the areas of news, sports commodities markets etc. Leaving journalism for advertising in 1954, he initially worked as a copywriter at J. Walter Thompson, Bombay. Thereafter, he was with Lintas India and Hindustan Lever in a variety of jobs, starting as a copywriter and rising to the post of Chief Executive of Lintas - a position he held for 11 years, distinguishing himself as one of the advertising industry's

most creative minds. It was during this period that his expertise was sought by various Ministries of the Government of India (Tourism & Civil Aviation, Health & Family Planning, Information and Broadcasting).

In 1972, Shri Da Cunha was a member of the Thapar Committee that reviewed the working of the National institute of Design and made recommendations for its further functioning. He was closely associated with drafting the final report of the Committee. Thereafter, for several years he was a member of the Institute's Governing Council.

He stepped down as Head of Lintas in 1980 to join UNICEF in Brazil to assist its child health programmes. His ten years with UNICEF also included four years at its headquarters in New York. He returned to India to help coordinate communication supports to the National Technology Missions (drinking water, literacy, immunisation, oilseeds and telecommunications) over a period of four years, in what was to be one of the country's most significant demonstrations of communication planning and implementation in key sectors.

In 1994, the Indian Society of Advertisers awarded him the ISA Gold Medal for distinguished service in the field of advertising and marketing. He was voted to the Hall of Fame by the Advertising Club, Calcutta. Presently Shri Da Cunha works on various assignments as a consultant to the World Bank and UNICEF, besides several other national and international agencies. He is today the convener of AGNI which seeks to increase the accountability of India's public officials. His deep and abiding interest in theatre and cinema now includes poetry. He recently launched 'So Far' a collection of poems, a chronicle of wanderings.

# S K Bhargava

Shri Subodh Bhargava was the National President of the Confederation of Indian Industry (CII) for the year 1995-96. CII is India's premier industry association with a membership of over 3000 companies. Before this, as Chairman of the CII National Committee on Raw Materials, President of Indian Automobile Manufacturers Association and Vice President of the Tractor Manufacturing Association, Shri Bhargava has been an outstanding spokesperson for Indian Industry over the last decade, influencing government policy and working with Indian Industry to evolve adequate response to the changing environment.

Shri Bhargava has been closely associated with Technical and Management Education in India. He has been Chairman of the Board of Apprenticeship Training and also served as a Member on the Government appointed Synergy Committee

for Indian Institutes of Technology. He is currently on the Board of Indian Institute of Management, Indore and Indian Institute of Foreign Trade, New Delhi. He is also a member of the senior panel of AICTE set up for a comprehensive valuation of Research in engineering and Technology and on the Committee set up by the HRD Ministry, GOI for Policy Perspective for Management Education in India.

Shri. Bhargava is a mechanical engineer from Roorkee (1962) with a University 'blue' in Squash, Hockey and Football. He started his career in Balmer Lawrie & Co. and then joined the Eicher Group of companies in Delhi. He retired as Group Chief Executive of Eicher and is presently Advisor to them. Under his leadership, Eicher transformed itself from being a single product company (Tractors), to being a significant player in the Indian automobile Industry, with 10 manufacturing facilities all over the country employing over 6000 people for manufacturing Tractors, Light Commercial Vehicles, motorcycles and automotive gears. The last two were sick companies taken over and turned around under his leadership.

# Varghese Kurien

Born in 1921 in Kerala. Dr. Varghese received his education at Madras University, TISCO Technical Institute (Jamshedpur), Michigan State University (USA) and the National Dairy Research Institute in Bangalore. Architect of Operation Flood, the dairy development programme in the world. Dr. Kurien has been instrumental in empowering millions of Indian farmers to mould their own development. Operation Flood, the National Milk Grid and the 'Anand Model' have served to raise their standard of life through more uniform prices, reduced exploitation by middlemen and direct access to technology and management skills.

As the founder-chairman of the National Dairy Development Board (NDDB), Dr. Kurien has guided Operation Flood from its inception in 1970. Its phases of development began with linking India's best milk sheds to the markets of the four metropolitan centres, and now reaches milk to consumers in 570 towns and cities. By 1985 the system had embraced 43,000 village cooperatives and 4.25 million milk producers and had extended to a range of milk-based products. A national genetic improvement programme was also initiated to upgrade the quality of Indian cattle. In early 1990, Kaira District Cooperative Milk Producers' Union Ltd (Anand), pioneered by Dr. Kurien had succeeded in lifting its daily collection to one million litres a day, from about 500 litres in 1948. Dr. Kurien is chairman of the Gujarat Cooperative Milk Marketing Federation Ltd, and is also Chairman, National Cooperative Dairy Federation of India.

Following the demonstration through Operation Flood of democratic enterprise at the grassroots, Dr. Kurien extended his leadership toward national self-sufficiency in oilseeds, and later to the marketing of fruit and vegetables as well as salt. Launched in 1979, the oilseeds growers' cooperative project now links nearly a million farmer members in nine states in oilseeds growers cooperatives, serving national markets with branded, packaged products through the Oil Grid. In each of these efforts, the objective of poverty removal has been linked to giving Indian farmers an honoured place in the economic scheme of things.

Recognising the need for professional skills essential for strengthening and extending this movement, Dr. Kurien created the Institute of Rural Management (IRMA) at Anand in 1979, now one of India's leading centres of management training. He also helped establish the Tribuvandas Foundation charitable trust, with its emphasis on health care facilities. Internationally renowned for his achievements, Dr. Kurien has served as a bridge between developed and developing nations, as well as between India and its partners. Honoured by many institutions, he has served on national and international bodies including the international Diary Federation as its Vic-President. Dr. Kurien's honours include the Padma Shree, Padma Bhushan and Krishi Ratna as well as the Ramon Magsaysay Award for Community Leadership, the Carnegie Foundation Peace Prize and the World Food Prize.

## R A Mashelkar

Dr. R A Mashelkar, an internationally acclaimed chemical engineer, took over as the Director General of Council of Scientific & Industrial Research in July 1995. He is the youngest Director General of this largest chain of laboratories in the world. Dr. Mashelkar was the Director of National Chemical Laboratory (NCL) before he took over as the Director General.

The Mashelkar Committee report (1993) gave a refreshing new market and user orientation to the Council of Scientific & Industrial Research (CSIR). Dr. Mashelkar enunciated CSIR 2001: Vision and Strategy, a path breaking effort to create a performance driven, accountable, user focused organisation, which creates wealth and social good out of its science. He has been propagating a culture of innovation and creativity with a strong intellectual property regime in India.

Dr. Mashelkar has been an active consultant in research and technology to Indian industry as well as to leading companies in USA and Europe. Dr. Mashelkar has been consultant to the World Bank on restructuring of Industrial R & D.

Dr. Mashelkar was a Member of the Science Advisory Council (SAC) to the Prime Minister of India (1998-1990).

Dr. Mashelkar is an active researcher. His pioneering contribution in non-Newtonian fluid mechanics, polymer reaction engineering and gel science and technology have won him many laurels. He set up a world class polymer science & engineering school in NCL, Dr. Mashelkar has published over 225 research papers in international journals and he has edited 18 books. Dr. Mashelkar has won many awards, some of which include the prestigious SS Bhatnagar Prize (1982), KG Naik Gold Medal (1985), FICCI Award (1987), Viswakarma Medal (1988), OP Bhasin Award (1991), Pandit Jawaharlal Nehru Award for Technology (1991), GD Birla Award (1993), JRD Tata Āward for Corporate Leadership by All India Management Association (1998); Material Scientist of the Year Award (2000), H K Firodia award (2000) Dadabbhai Naoroji Award (2002) and IMC Juran Quality Medal (2002). Fourteen universities have honoured him with Doctorates of Science (honoris causa) which include the universities of London, Salford, Pretoria, Wisconsin, Delhi, Allahabad. He was recently elected Foreign Associate of National Academy of Engineering (USA)

Dr. Mashelkar has received a number of international honours. He has been elected a Fellow of the Royal Society of London in 1998. In 1993 he was elected a Fellow of Third World Academy of Science in Trieste, Italy. In 1991, the President of India honoured him with Padmashri in 1991, followed by a Padmabhushan in 2000 in recognition of his contribution to nation building.

#### Rathikant Basu

Shri Rathikant Basu is the promoter of Broadcast Worldwide Pvt. Ltd, a private regional satellite network that will soon launch four international quality regional channels in the sub-continent and eventually worldwide.

As Director General, Doordarshan, in the early nineties and more recently as the CEO and Executive Chairman STAR TV, Shri Basu has been responsible for revolutionising television viewing in India with innovative and quality programming. After having contributed immensely to Hindi and English television, Shri Basu is now concentrating on redefining regional and local television.

As Director General, Doordarshan, Shri. Basu is credited with many important innovations and for introducing high quality entertainment and infotainment in the Indian television industry. Doordarshan's sister channel, the hugely successful DD Metro was conceptualised and launched by Shri. Basu himself to combat the

onslaught of private satellite television. The success of the Metro channel was followed by the launch of several satellite channels including DD International, DD Movie Club, DD3 and several other regional satellite channels. Through this channel, the Indian viewer was introduced to the concept of quality entertainment through television for the first time and undoubtedly the channel was a runaway hit.

Shri Basu joined News Corporation in October 1996, after a distinguished career in the Government in India as well as the Government of Gujarat. As the CEO & Executive Chairman STAR TV, Shri. Basu changed the face of transnational satellite television in India from a foreign medium to a friendlier Indian avatar in the form of STAR Plus which is today the leading Hindi satellite channel. STAR News, which was conceived and launched by Shri. Basu, days before the 1998 general elections, is the country's first and most successful 24-hour news channel today. Through the regional channels in the Broadcast Worldwide network, Shri Basu brought in quality regional programming to the Bengali, Marathi, Gujarati and Punjabi people of the sub-continent.

Shri Basu turned entrepreneur and launched his own company Broadcast Worldwide as the vehicle for the TARA network. Shri Basu has redefined regional television viewing in the country in a big way, making the Broadcast Worldwide channels the cornerstone of his business strategy.

# N R Narayana Murthy

Shri Narayana N. R. Murthy founded Infosys in 1981 along with six other software professionals. Shri Murthy presently serves as the Chairman and Chief Mentor of Infosys. He is a member of the Prime Minister's Council on Trade and Industry (India), the Asian Executive Board at the Wharton Business School and the Board of Councilors at the University of Southern California School of Engineering. He is also a director on the Board of the Reserve Bank of India.

Shri Murthy has won several awards such as the Nikkei Asia Award, the Wharton School Dean's Medal, and the 2001 Freedom Prize by the Max Schmidheiny Foundation (St. Gallen). He has also been featured in Business Week's 'The Top Entrepreneurs' (1999) and 'The Stars of Asia' (for three successive years-1998, 1999 and 2000).

Shri Murthy has a bachelor's degree in Electrical Engineering from the University of Mysore and a master's degree from the Indian Institute of Technology (IIT), Kanpur.

Infosys (NASDAQ:INFY) is an IT consulting and service provider, providing end-to-end solutions for global corporations. Today, Infosys is acknowledged by its clients, its employees, its vendor-partners, and its investor and by society-at-large as a highly respected, dynamic and innovative company.

# Adi Godrej

Shri Adi Godrej is the Chairman of the Godrej Group, one of India's largest and diversified conglomerates. From home appliances, office furniture, office automation systems, cosmetics to FMCG, Godrej is a time tested and trusted brand. It is a popular household brand name in India. A Masters' degree holder in Management from the Massachusetts Institute of Technology, USA, Shri Adi Godrej is the Director of a number of blue chip companies including Godrej & Boyce Mfg. Co. Ltd., Godrej Agrovet Ltd., Godrej Appliances Ltd., Godrej International Ltd., Godrej Global MidEast FZE, Mcdowell & Company Ltd. He is the Chairman of The Board of Trustees of the Dadabhai Naoroji Memorial Prize Fund. He had also been the Chairman and President of the Indian Soap and Toiletries Makers' Association, The Central Organisation for Oil Industry and Trade, The Solvent Extractors' Association of India. The Compound Livestock Feeds Manufacturers' Association, the Indo American Society. Shri Godrej has been closely associated with premier academic institutions too in various capacities. He had been the Chairman of The Governing Council of the famous Narsee Monji Institute of Management Studies, Mumbai and a former member of the Deans' Advisory Council of the MIT, Sloan School of Management and the Wharton Asian Executive Board. At present Shri Adi Godrej is a member of the National Council of The Confederation of Indian Industry as well as the Governing Board of the Indian School of Business, Hyderabad. Shri Adi Godrej is an industry leader whose vision inspires the modern India.





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